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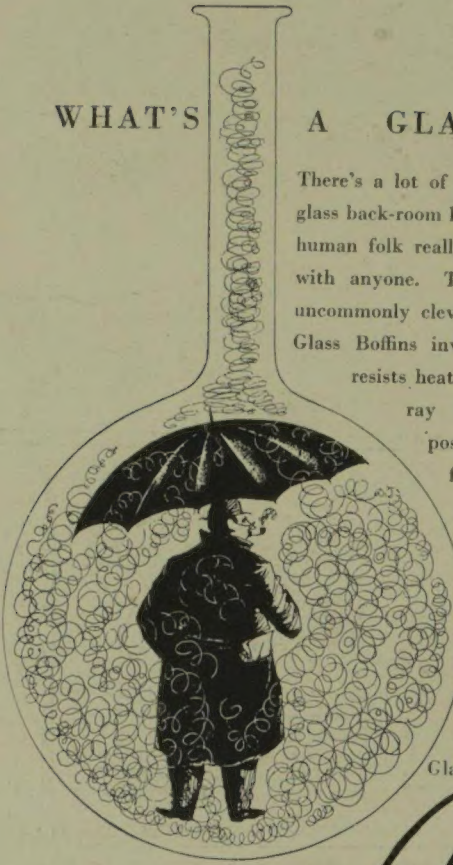
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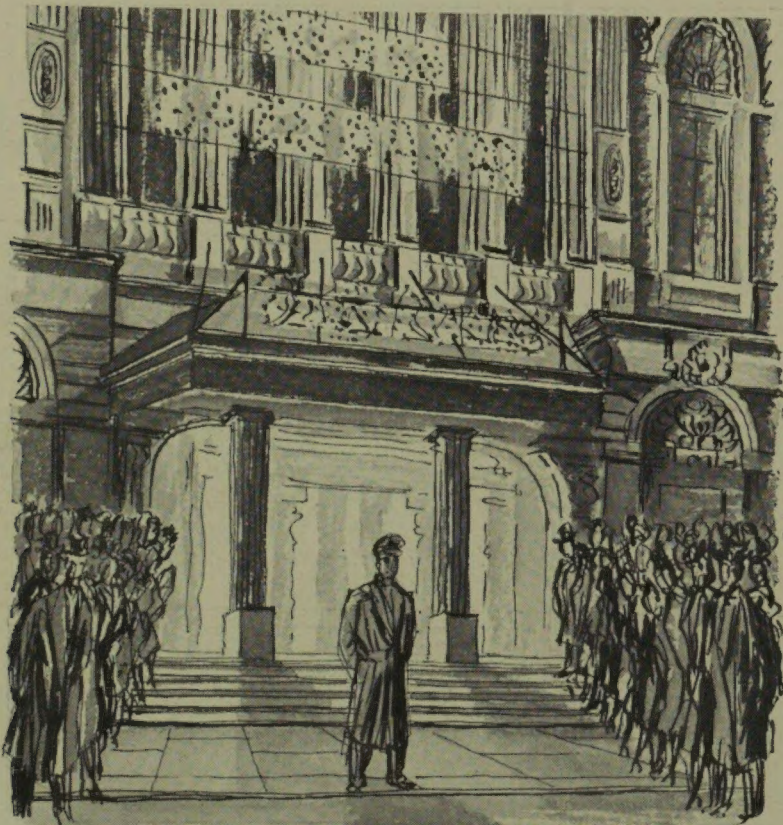
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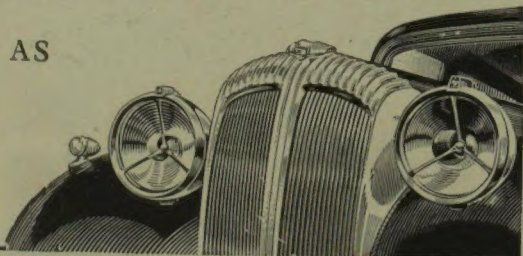


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SATURDAY, JANUARY 21, 1950.



THE RESCUE OF FIVE SURVIVORS OF TRUCULENT BY THE DUTCH FREIGHTER ALMDIJK: THE LIFEBOAT RETURNING TO THE BRILLIANTLY-LIT VESSEL, WHOSE SEARCHLIGHT IS STILL SWEEPING THE CALM, DARK WATERS.

The first news of the sinking of *Truculent* was received from the Dutch freighter *Almdijk* after she had picked up five survivors—Lieut. C. P. Bowers, commanding officer; Lieut. (E) J. E. Stevenson, Lieut. J. N. Humphry-Baker, Sub-Lieut. A. A. Frew and Leading Seaman Hedley. Bound for Victoria Docks, London, she saw and heard nothing of the collision on January 12; but the First Officer on watch on the port wing of her bridge heard cries coming out of the darkness. Every deck and cargo lamp was turned full on to signal to the men in the water that their cries had been heard. The *Almdijk* turned round to port and steamed slowly back on her

course, her searchlight sweeping the sea. Suddenly two little parties of men—three together and two together—clinging to each other, were observed over the starboard bows, and the starboard boat was launched. The five had remained together after the submarine sank and had shouted in unison. Probably this and the stillness of the night allowed their cries to be heard. The *Almdijk* had at once enquired by radio if there was any report of an accident; but nothing was then known. She reported to North Foreland radio station: "We are engaged in rescuing people out of the water." The ship's lifeboat is propelled by manual levers driving (through gearing) the propeller.

DRAWN BY OUR SPECIAL ARTIST, G. H. DAVIS, S.M.A., FROM AN EYE-WITNESS ACCOUNT BY THE FIRST OFFICER OF THE "ALMDIJK."

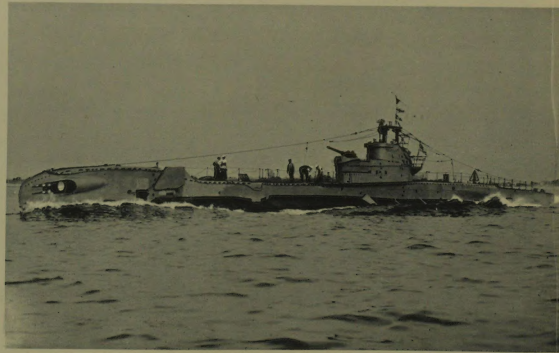
THE SINKING OF H.M. SUBMARINE "TRUCULENT": AN ARTIST'S IMPRESSION; AND OTHER ASPECTS OF A PEACETIME TRAGEDY.



THE SINKING OF H.M. SUBMARINE TRUCULENT WITH THE LOSS OF SIXTY-FOUR LIVES: AN ARTIST'S IMPRESSION SMASHED AND A GREAT GASH IN THE TORPEDO STOWAGE FLAT, IS ALREADY DOWN BY THE HEAD, WITH AIR AND



MARKING THE SPOT WHERE TRUCULENT LIES ON THE BOTTOM: A WRECK-MARKER IN POSITION FOR DIVERS GOING DOWN TO THE WRECKED SUBMARINE.



A SISTER-SHIP OF THE ILL-FATED THETIS, WHICH FOUNDERED WITH THE LOSS OF NINETY-NINE LIVES IN 1939: THE SUBMARINE TRUCULENT, WHICH SANK IN THE THAMES ESTUARY AT 6.55 P.M. ON JANUARY 12 AFTER BEING IN COLLISION WITH THE SWEDISH TANKER DIVINA.

On the night of January 12 H.M. Submarine *Truculent* was proceeding on the surface some eight miles east of Sheerness, whilst on trials after a recent refit, when she came into collision with the small Swedish tanker *Divina*, outward bound from Purfleet to Ipswich. The collision was starboard to starboard of both vessels, so that *Divina* struck the submarine a glancing blow on the bows, smashing the stowed starboard hydroplane and leaving a great gash in the side of *Truculent*, through which water rushed into the forward torpedo stowage compartment. The stricken submarine immediately settled down by the head in an uprush of water and air through the hole,

and in a matter of one or two minutes, as the tanker went astern, slid under the surface of the sea. A few survivors who had been blown from the conning-tower by the rush of air were left floating about in life-jackets, and these were later joined by men who escaped from the submarine by means of the Davis Escape Apparatus, having previously released the sunken submarine's marker-buoy, which rose to the surface to mark the spot where the vessel lay. The bows of the *Divina*, which were specially reinforced for ice-breaking, were buckled, and some of the steelwork of the submarine was embedded in a hole in her starboard bow. The Swedish vessel picked up



SHOWING THE SWEDISH TANKER 'DIVINA' GOING ASTERN, WHILE TRUCULENT, WITH HER STARBOARD HYDROPLANE WATER GUSHING UPWARD FROM THE RENT IN HER HULL. (Drawn by G. H. Davis, S.M.A., from descriptions by survivors.)



SHOWING THE MARKER-BUOY, WHICH WAS SENT UP FROM TRUCULENT BY SURVIVORS IN AN AFTER-COMPARTMENT, NEARLY SUBMERGED IN THE FOREGROUND: THE SPOT WHERE THE SUBMARINE LIES, WITH THE MARGATE LIFEBOAT STANDING BY IN CASE ITS ASSISTANCE WAS REQUIRED.

ten survivors but no SOS was heard from her, and the first news of the disaster came some time later, after survivors (including the commanding officer) had been picked up by the Dutch freighter *Almdijk*. There were six officers, fifty-five ratings and eighteen dockyard workers aboard the submarine, of whom there are fifteen survivors. The captain of the Swedish tanker has been reported as saying that for nearly two hours after the collision he did not know it was a submarine that had been sunk and also that the *Divina's* radio is old-fashioned and he was the only man on board who could use it. He was too fully occupied in ordering rescue

operations to be able to send an SOS message himself. As soon as the Admiralty had been informed, the submarine rescue organisation was set in motion and vessels of several types were despatched to the scene. Divers and 'frogmen' were sent down to make certain that there was no one left in the submarine before emergency measures were discontinued and the problem of salvaging *Truculent* in nine fathoms was tackled. It is believed that most of the crew were able to leave the submarine and the heavy death-roll is due to the darkness and the strength of the tide, which swept the survivors away from the rescue ships before they could be located.



TRUCULENT'S LAST MESSAGE TO THE OUTER WORLD: THE SUBMARINE'S MARKER-BUOY, RELEASED BY SURVIVORS AFTER THE ACCIDENT, AND SEEN ABOARD A NAVAL SALVAGE VESSEL.



By ARTHUR BRYANT.

I SEE that Mr. Jackson Martindell, president of the American Institute of Management, is reported as saying that an Englishman's word is no longer his bond. In the past the commercial dependability of the British merchant and industrialist was probably, by and large, this country's greatest economic asset, so that Mr. Martindell's charge, if justified, is as serious a matter in terms of dollars and earnings as it is in the sphere of morality. A hundred and more years ago our national habit—for that was what it was—of honourable dealing had a profound effect on the expansion of our overseas trade and empire. It caused peoples on whom the expansion of the English impinged, if not to like us, to trust us. "I would rather sacrifice Gwalior and every other portion of India ten times over," Wellington once wrote, "to preserve our credit for scrupulous good faith." A Bordeaux merchant, on whom a penniless officer of his Peninsular army had been billeted, offered to lend him any sum he liked without security, since he had complete faith in the word of an Englishman. Richard Hotham, the great eighteenth-century hatter, made it a rule only to sell the best, so that every new customer became an old; Samuel Archer, the inventor of imitation pearls, went to extraordinary lengths to prevent his products from being mistaken for the genuine article. Though cheats and knaves abounded, as in every society, a bright skein of honesty ran through the nation; a poor Lancashire weaver in 1820 almost starved himself on the road from Manchester to London sooner than risk not being in court when his bail was called. "I should have been miserable," he said, "if from any circumstances I had incurred a risk of not being in court when called and had thereby forfeited the bail which my friends had given me." Among the quarrymen of South Dorset, the saying "on the word of a Portland man" was for long held as good as a contract.

Therefore, if Mr. Martindell is right—and I am afraid there are reasons, though possibly only temporary ones, for suspecting that there may be an element of truth in his accusation—it is important that we should try to trace the reasons for that decline. He himself attributes it to the absence of ordinary business incentives and the fact, to quote his reported words, that profits cannot be translated "even into the most elementary of the luxuries to which business men have been accustomed." For this reason, he tells us, many Englishmen are resorting to smuggling and illegal currency transactions and "are taking enormous risks for petty and often imaginary benefits." This presumably renders them evasive; they are perpetually afraid and as a result habitually inclined to roundabout instead of straightforward courses. This is an almost inevitable result, in a trading community, of sumptuary or moral laws so strict that self-interest and honesty become incompatible. A discerning foreigner once wrote that the wisdom of our old English system—a curious blend of private liberty and public obligation—was that it so frequently made self-interest, at all levels both of opportunity and character, serve the ends of society. It hardly does so to-day: in a very wide, and perhaps predominant, range of economic activity the "spiv" and manipulator stand a better chance of worldly success than the stable and honest producer.

Yet I doubt if Mr. Martindell's diagnosis goes deep enough. I do not believe that even a return to a 100-per-cent. Republican's level of free enterprise would by itself make all our traders honest. After all, it does not always make all American traders so or above an occasional piece of sharp practice. A system that recognises self-interest as an inherent part of any business relationship gives traders who wish to remain solvent an opportunity of being habitually honest, but it does not *ipso facto* make them so. It may still be more profitable to be dishonest on occasion. Something more, therefore, is needed: something that used to be present in British life and seems partly so no longer. That something is a belief in principle for its own sake instead of a purely opportunist materialism—the corroding disease that threatens both free capitalism and social democracy. A materialist cannot be consistently honest,

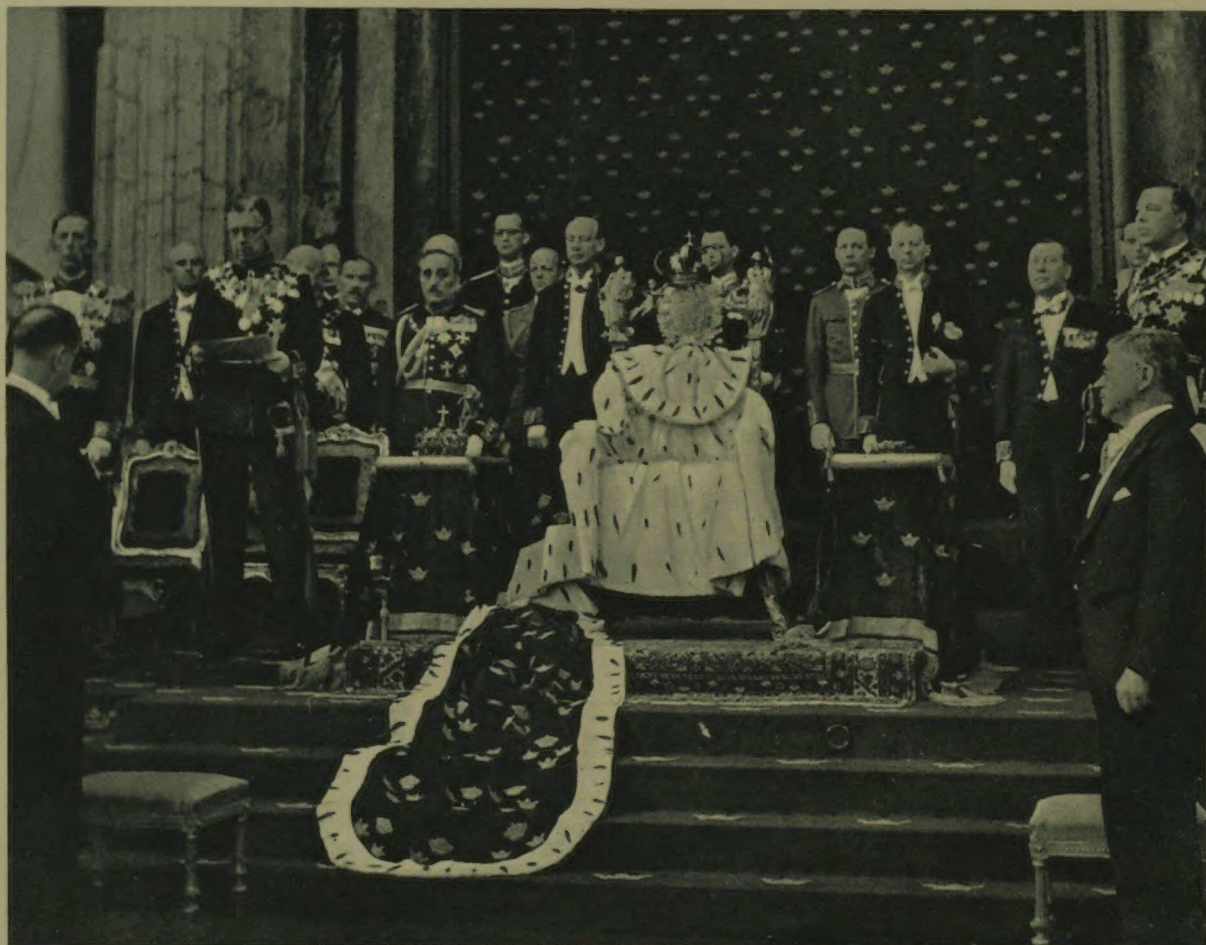
Only a moral belief, a body of principle taught from childhood till it becomes second nature, can discipline human nature. And that goes for my nature, your nature and every man's nature. For a generation or more we have increasingly lacked that body of belief. In all departments of life to-day too few of those who lead us and set our standards are men of real and certain principle.

There is only one cure for this disease—that, if unchecked, must corrode all our material achievements, wealth and power. It is to believe that principle is more important than material success, and to act consistently on that belief. It is to have and practise, in other words, a religion. Looking back over his long experience of the treacherous, disastrous politics of anarchical India and revolutionary Europe, Wellington once declared that it was England's Church and religion that had made her

what she was: a nation of honest men. By this he meant a community in which a majority of men could trust one another and which others could trust too. This applied to business, to politics, to family relationships, to all the activities of daily life. There were plenty of failures and plenty of exceptions—in any human society there always will be—yet, generally speaking, English men and women tested their actions by their religious beliefs and tried to behave accordingly. We may not be able to return as a nation to the precise religious forms of the past: new wine may demand new bottles. But unless we return to a religious belief, and one which dominates our actions, we shall not survive as a nation at all. Someone once said that the Church of England was the Conservative party at prayer: and someone else that the Liberal Party was non-conformity on the hustings. Who could find such a religious basis in either of our principal political parties to-day? Both are opportunist, and both largely obsessed with materialist ends; even though the

proposed beneficiaries of their policies may differ.

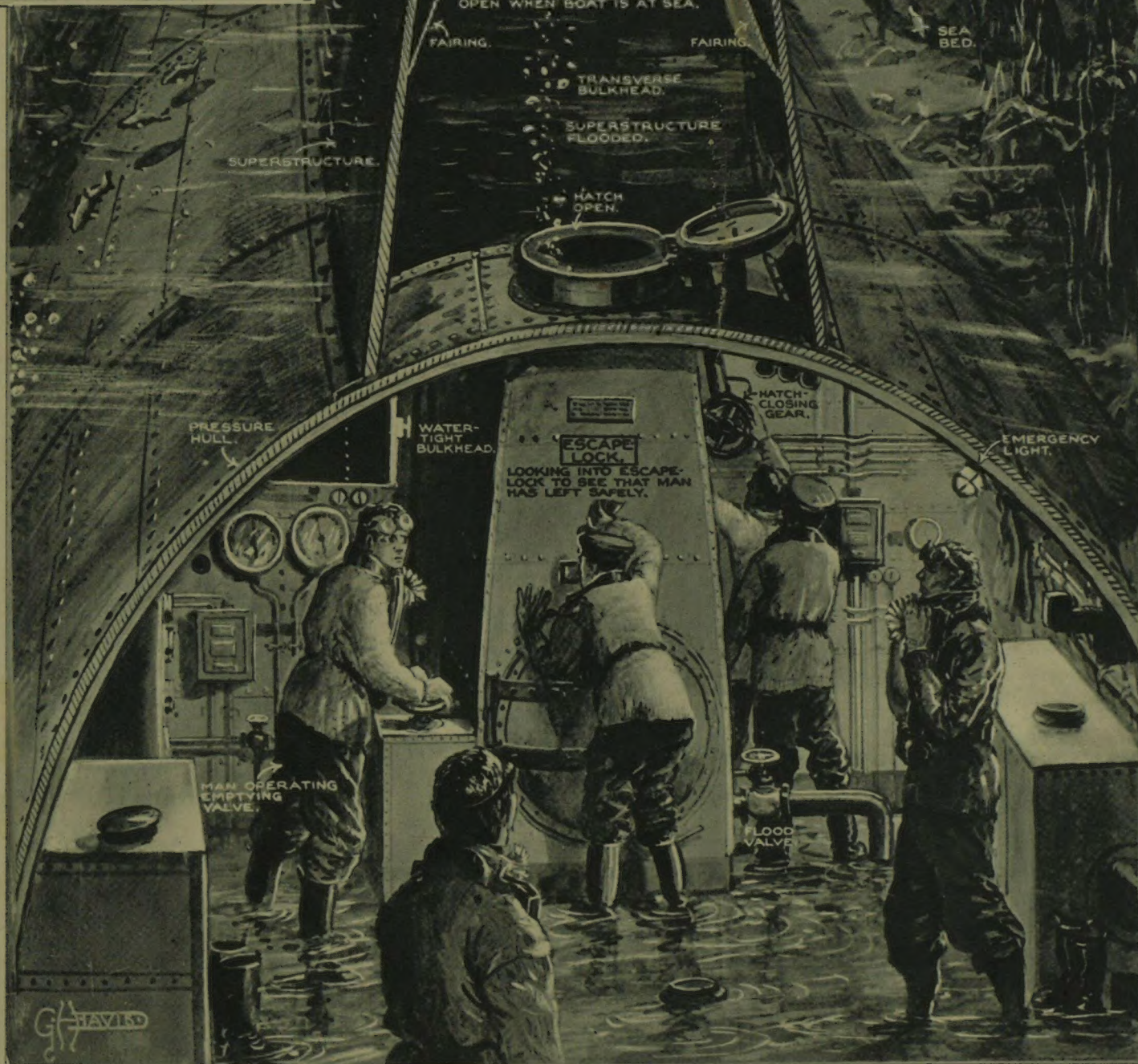
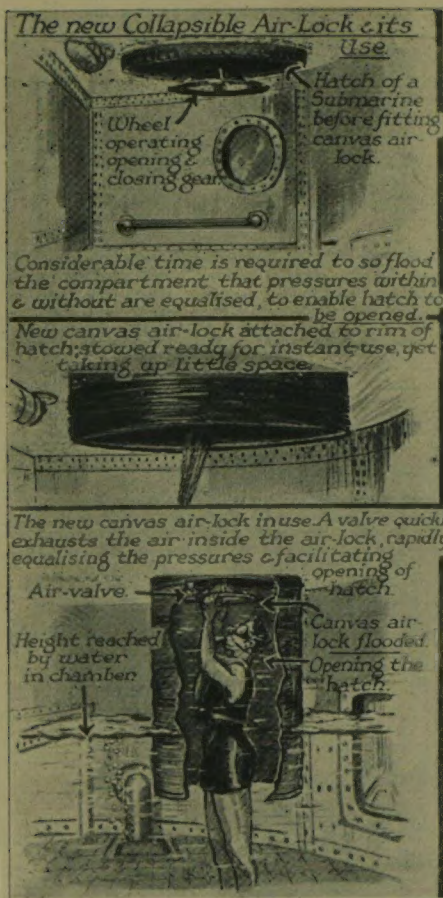
Fortunately the instinct for religion still survives deep in our people. It is only waiting for the leader, or leaders, who can reawaken it. We saw how swiftly, evoked by men with faith and moral integrity, it could spring to flame during the war. The men who fought at Alamein, beyond the Chindwin and on the D-day beaches, were inspired by the purpose of a crusade. In their widely differing spheres, men like Montgomery and Paget, Wingate and Slim, Cunningham and Tovey, and thousands of others at lower levels, could inspire Englishmen to do great things because they were men of faith and principle, and Englishmen at heart always respond to faith and principle. Without exemplars they may wallow for a time in a morass of opportunism and self-seeking, but they instinctively turn to the firm ground to which they are accustomed when they begin to feel it under their feet. Britain's profoundest economic need to-day is, not dollars or bigger exports or even more food, but the spirit of faith and rectitude that made our forefathers the best-trusted men in the world and won us the proud place we so long held, and, by the grace of God, shall hold again.



COVERED WITH THE EMBLEMS OF SOVEREIGNTY BUT LEFT EMPTY IN THE ABSENCE OF KING GUSTAF: THE 300-YEAR-OLD SILVER THRONE OF SWEDEN, IN WHICH NO ONE BUT THE SOVEREIGN MAY SIT. THE SCENE AT THE OPENING OF THE NEW SESSION OF PARLIAMENT IN STOCKHOLM ON JANUARY 11, WHEN CROWN PRINCE GUSTAF ADOLF READ THE KING'S SPEECH FOR HIS FATHER, WHO WAS UNABLE TO BE PRESENT OWING TO ILLNESS.

King Gustaf, the ninety-one-year-old King of Sweden, who has been ill since before Christmas, was unable to open the new session of the Swedish Parliament for the first time in forty-three years. The King's Speech was read by his son, Crown Prince Gustaf Adolf, who is sixty-seven. King Gustaf, who has been suffering from bronchitis and a septic throat, was able to listen in his bedroom at Drottningholm Castle to a broadcast of the opening ceremony. Queen Ingrid of Denmark, the King's granddaughter, accompanied by her two youngest daughters, left Copenhagen for Stockholm on January 11.

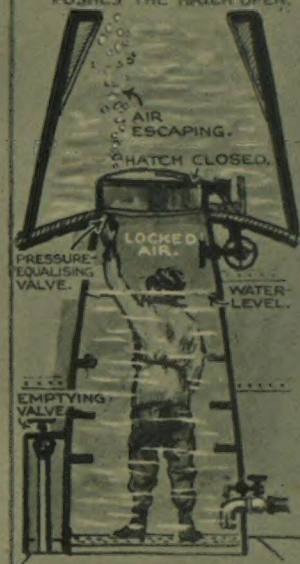
because he has no absolute standard of honesty. His only criterion is material success: if he believes that his own material ends will be really served by a piece of crooked dealing, he is liable sooner or later to resort to it. No one, therefore, can safely trust him. A nation which measures success only by material standards: by money ("a £10,000 p.a. director" or "a forty-room house"), by votes (parliamentary, Press or radio), by headlines or "star" lettering, by bureaucratic status and seniority, by sex-appeal, is a nation which automatically encourages the production of successful and unconscious crooks. And though, when his frauds on his fellow-men have been crowned with success, you may make a crook a chairman of a company, or a Trade Union organiser, a peer, or a Privy Councillor, or even a Cabinet Minister, he is still not to be trusted, and will still ultimately and inevitably cause those who rely on him to rue having done so. Unless a man instinctively refers every opportunity that presents itself to him—be it in business, politics, sport, art or learning—to a moral mentor inside himself, a test of conscience and moral conviction, he is a crook in grain. He will lie, he will cheat, he will evade, for it is human nature to lie, to cheat, to evade.



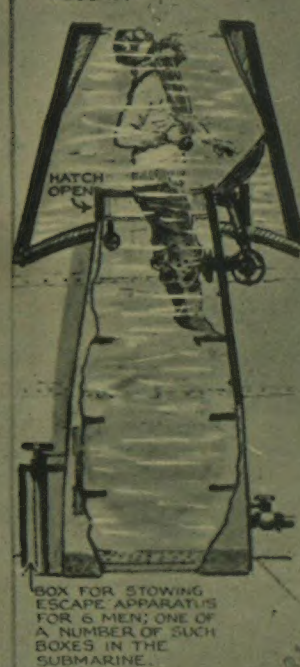
1 AFTER ONE MAN HAS ESCAPED THE HATCH IS CLOSED & THE ESCAPE-LOCK QUICKLY EMPTIED. THE INNER DOOR IS THEN OPENED & THE NEXT MAN ENTERS.



2 THE INNER DOOR IS CLOSED & THE LOCK FLOODED. THE MAN INSIDE LETS OUT THE LOCKED AIR TO EQUALISE THE PRESSURE WITHIN & WITHOUT & PUSHES THE HATCH OPEN.



3 THE MAN NOW CLIMBS PARTLY OUT, INFLATES HIS ESCAPE-APPARATUS & COMMENCES TO ASCEND.

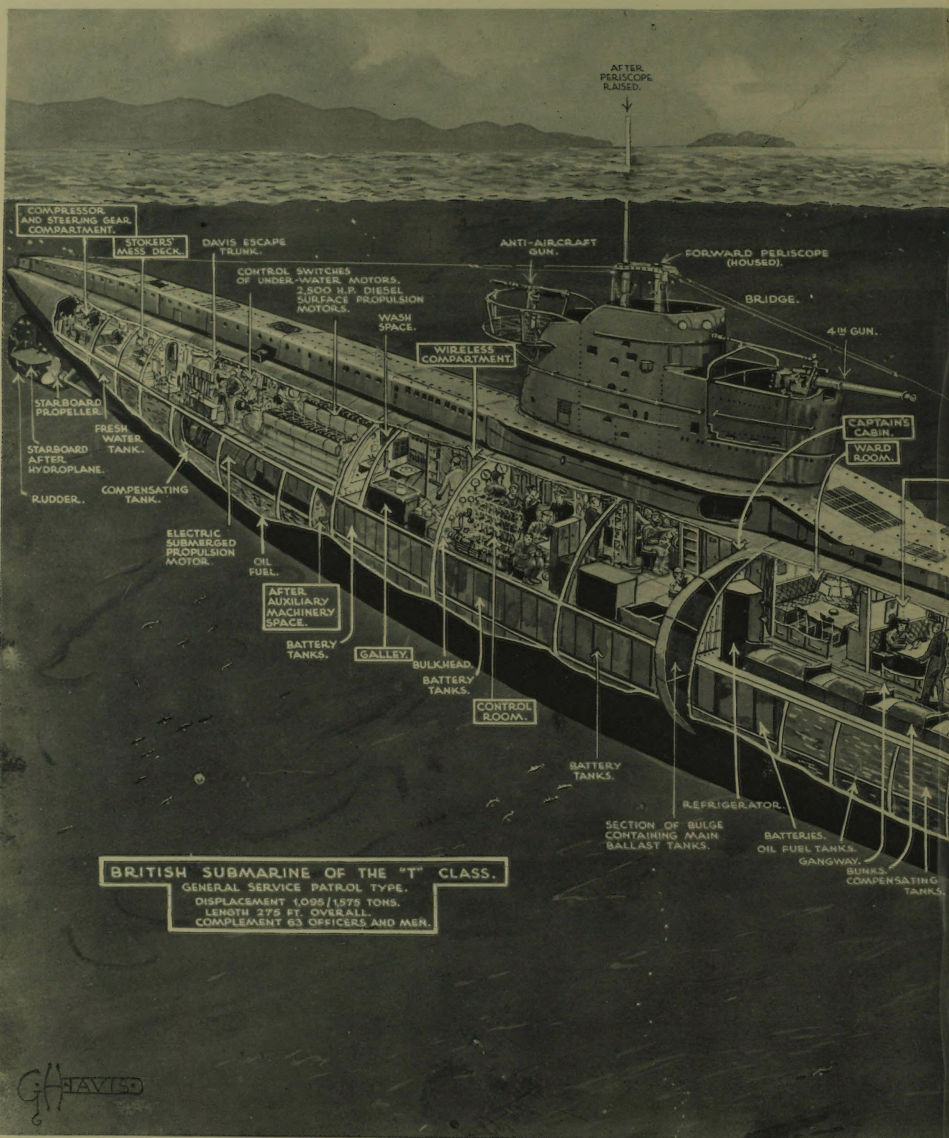


HOW ESCAPE IS MADE FROM A DISABLED SUBMARINE: TWO METHODS BY WHICH MEN, WEARING THE DAVIS ESCAPE APPARATUS, LEAVE BY THE ESCAPE HATCHES—(MAIN PICTURE) THE FIXED CHAMBER; (INSET, TOP LEFT) THE TWILL COLLAPSIBLE TUBE.

Some of the survivors of the *Truculent* disaster have described how they escaped from the submarine by means of the escape hatches, some wearing the Davis Escape Apparatus, others without. Our drawings here show how the escape hatch is used. There are two methods, basically similar: first, the fixed escape chamber (which was used in the *Thetis* disaster in 1939); and, second, the collapsible twill tube, to which some *Truculent* survivors referred and which has now superseded the fixed chamber. In the case of the fixed chamber, the man enters it dry, closes the door, floods the chamber with water, releases the trapped air, opens the escape hatch and floats out; the hatch is then closed, the chamber emptied of water into the compartment and the process repeated for the next man. With the collapsible tube, which is normally

stowed round the escape hatch opening, the process is as follows. The tube is drawn down to about 3 ft. from the deck of the compartment and secured; the compartment is flooded (by means of sea-cocks) until the compartment is more than half-full of water and the entrance to the tube is under water. Then the man escaping ducks into the tube and releases the air trapped in it and escapes via the hatch, the remainder of the men trapped awaiting their turn, chest-high, or thereabouts, in the water in the compartment. This second method, which sounds much more precarious to the layman, is much speedier, as there is no filling and emptying between each escape. The Davis Escape Apparatus carries breathing apparatus and an extensible check vane to slow ascent. A red signal light is not normally fitted.

DRAWN BY OUR SPECIAL ARTIST, G. H. DAVIS, S.M.A.

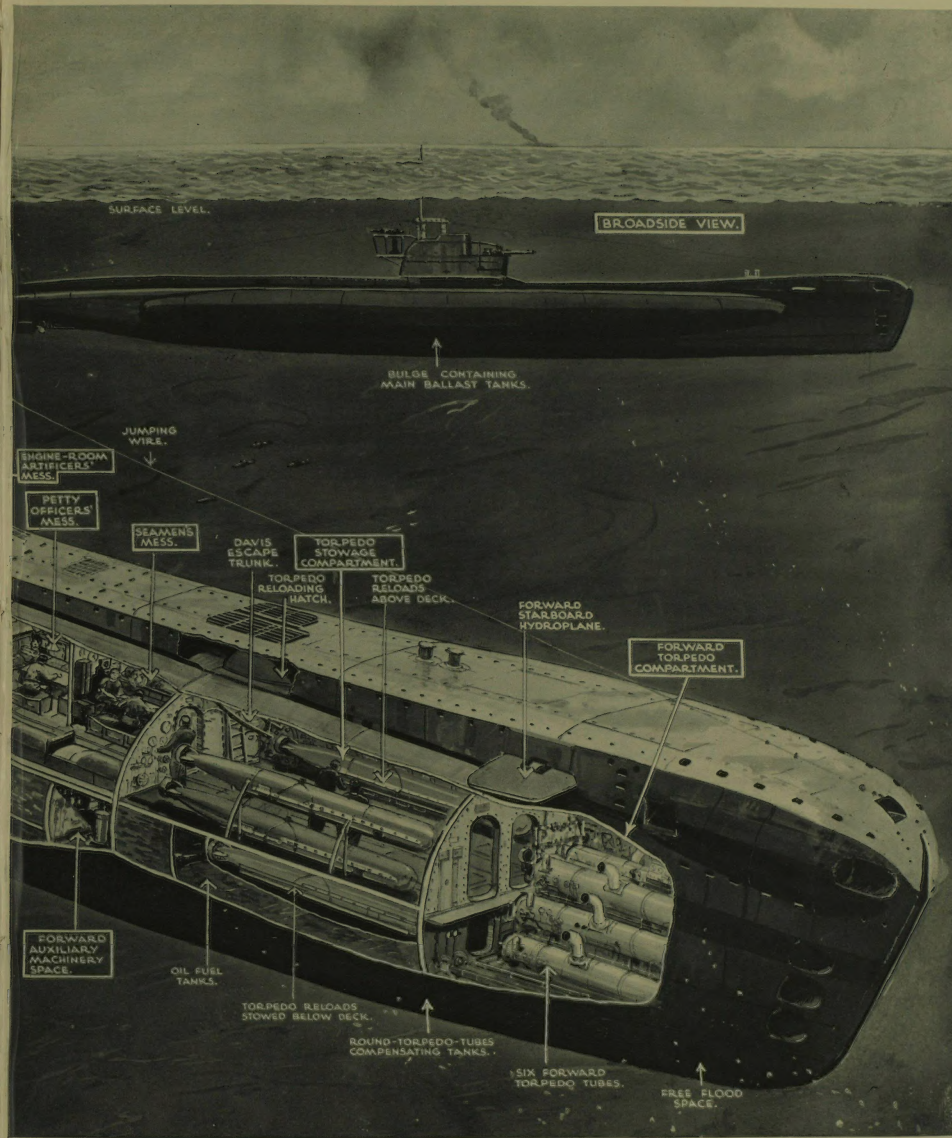


THE TRUCULENT DISASTER: A DIAGRAMMATIC DRAWING OF A TYPICAL "T" CLASS SUBMARINE, SHOWING OF THE COLLISION GATHERED BEHIND CLOSED WATER-TIGHT DOORS TO PREPARE

H.M. Submarine *Truculent*, which sank on the night of January 12 after being in collision in the Thames Estuary with the Swedish motor-tanker *Divina*, was a "T" class submarine of between 1,090 and 1,575 tons, launched in September, 1942, and completed the same year. There are twenty-five vessels in the class and another four have been transferred to the Royal Netherlands Navy; fifteen were lost in the war and five have been cancelled or scrapped. *Truculent* is a sister-ship of the ill-fated *Thetis*, which foundered when on trials in June, 1939, with the loss

of 99 lives, was later salvaged and renamed *Thunderbolt*, and finally was sunk by depth-charges off Cape Milazzo in March, 1943. Our diagrammatic drawing shows the interior of a typical submarine of the class—some have been reconstructed and modified—from which our readers will be able to visualise what happened when *Truculent* was struck on the starboard side of the torpedo stowage compartment. A large area of plating was torn away and the water rushed through into the control room, under the conning-tower. Although the submarine went down

DRAWN BY OUR SPECIAL



THE INTERIOR ACCOMMODATION AND THE POSITION OF THE AFTER-COMPARTMENTS, WHERE SURVIVORS FOR THEIR HAZARDOUS ESCAPE BY MEANS OF DAVIS ESCAPE APPARATUS.

very rapidly by the head, those in the engine-room and stokers' Mess were able to close the watertight doors. In order that the Davis Escape Apparatus could be used, the after-compartments were partially flooded and the submarine, losing the buoyancy of her after-end, settled on the bottom. The survivors then left the vessel by means of the escape-hatches seen in the deck of the superstructure. When running on the surface the hatches between the control room and the bridge are left open, and this provided a means of escape for the

ARTIST, G. H. DAVIS, S.M.A.

trapped air and doubtless gave the survivors of the collision just sufficient time to close the doors before the water could rush through the submarine. In peacetime, to facilitate the working of the vessel, watertight bulkhead doors are normally kept open when a submarine is on the surface. The rapidity with which a submarine sinks is due to the fact that her buoyancy is considerably less than that of a surface ship and over three-quarters of her hull, even in surface trim, is submerged.

THE LOSS OF "TRUCULENT"; THE DAMAGED "DIVINA," SURVIVORS, SCENES.



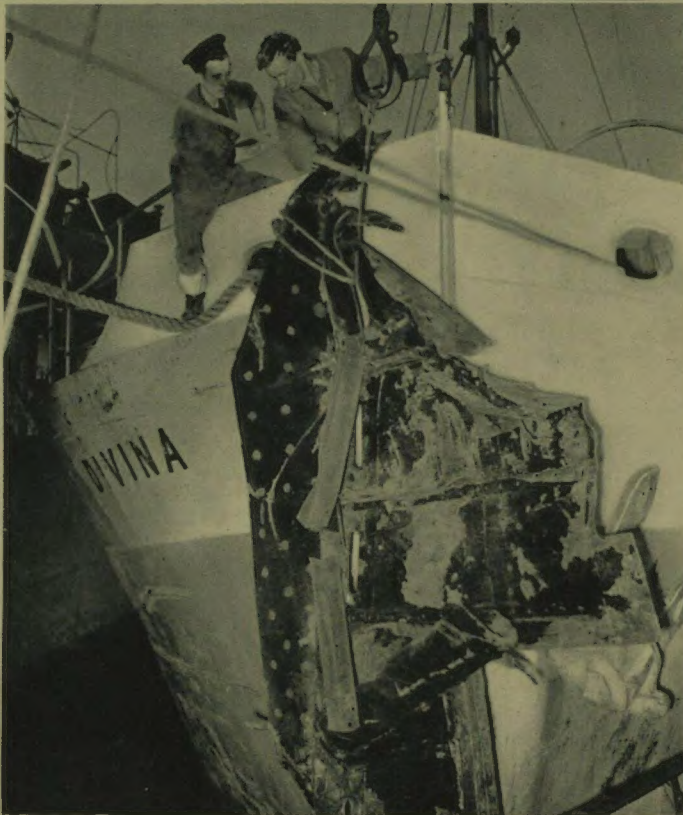
WALKING AWAY FROM THE QUAYSIDE AT CHATHAM ON JANUARY 13: SOME OF THE TEN SURVIVORS FROM WITHIN THE SUBMARINE *TRUCULENT*, AFTER LANDING FROM THE TENDER WHICH BROUGHT THEM FROM H.M.S. *COWDRAY*.



A TRAGIC CARGO: LANDING THREE BODIES—DRAPED IN THE WHITE ENSIGN—OF MEN LOST IN THE SINKING OF *TRUCULENT*, FROM THE TENDER WHICH BROUGHT THEM FROM H.M.S. *COWDRAY* TO CHATHAM.



ANXIOUSLY WAITING FOR NEWS OF SURVIVORS: LIEUT. C. P. BOWERS, COMMANDER OF *TRUCULENT* (MARKED WITH ARROW) WATCHING DIVERS AT WORK.



SHOWING THE TWISTED STEEL PLATING FROM *TRUCULENT* ATTACHED TO HER BOW: THE SWEDISH MOTOR TANKER *DIVINA*, WHICH WAS IN COLLISION WITH THE SUBMARINE.



AFTER GIVING EVIDENCE AT THE NAVAL BOARD OF INQUIRY: MR. R. E. STEVENS (R.) AND MR. D. A. GRIFFITHS, CIVILIAN DOCKYARD EMPLOYEES, WHO ESCAPED.



R.N. SURVIVORS: (L. TO R.) E.R.A. F. MOSSMAN, TELEGRAPHIST R. ALMOND, A.B. E. D. CHERITON, E.R.A. L. STRICKLAND, ELECTRICAL ASSISTANT, E. C. BUCKINGHAM, STOKER MECHANIC R. KENDALL, L.E.'S MATE G. J. HILLIER AND P.O. COOK R. C. FRY.

On the afternoon of January 13 ten survivors from the submarine *Truculent* reached Chatham on board H.M.S. *Cowdray*, having been transferred from the Swedish ship *Divina*, which picked them up after the collision. As *Cowdray* came into No. 3 Basin, ships in the dockyard sounded a welcome on their sirens. The frigate also brought three bodies, which came to shore in another tender. These survivors had all escaped from the interior of the submarine. P.O. Fry was the first man out. A number of men did not have Davis Escape Apparatus, including Telegraphist R. Almond, who said he had not time to pick up a set. He took a deep breath, dived under the water and up the tunnel, "hoping for the best." It is thought that all the compartments save the engine-room and the stokers' mess deck were



THE COMMANDING OFFICER OF *TRUCULENT* AND HIS FAMILY: LIEUT. C. P. BOWERS WITH HIS WIFE AND CHILDREN AT HIS HOME IN SELSEY, SUSSEX, ON JANUARY 15.

flooded, and that all the men in those two compartments got out, but many were then swept away by the tide. Morale, throughout the trying period of waiting for the engine-room to be flooded, was excellent. The men stood "in a queue" as one survivor said, and talked and joked with each other. The Swedish ship *Divina*, which had been in collision with *Truculent*, was released from detention in the Medway by the Admiralty Marshal and continued her voyage on January 14. Survivors gave evidence before the Naval Board of Inquiry which met on January 14 at Chatham under the presidency of Rear-Admiral J. Hughes-Hallett. Special prayers were offered in all the Medway town churches and chapels on Sunday for the men lost with the *Truculent* and for their relatives and dependents.

PRODUCING AIR SPEEDS OF 1500 M.P.H.: A CALIFORNIAN SUPERSONIC WIND-TUNNEL.

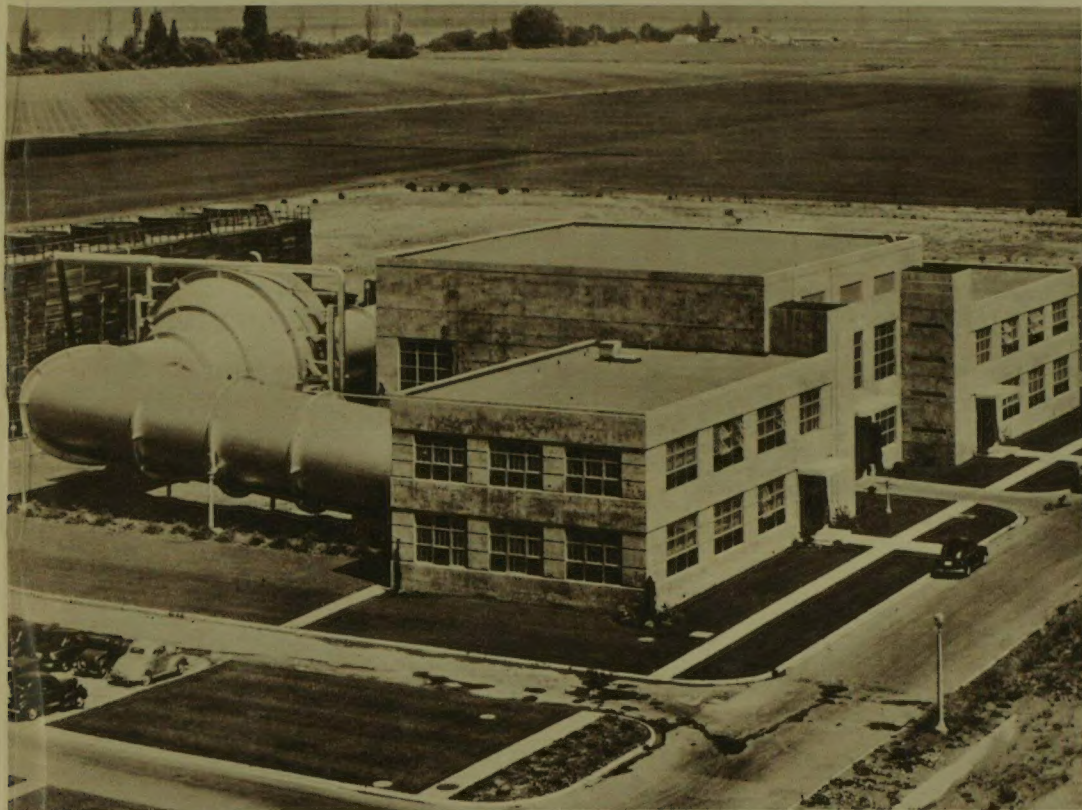


FIG. 1. GIRDRED WITH ITS EXPERIMENTAL WIND-TUNNEL: THE AMES AERONAUTICAL LABORATORY, A U.S. NAVAL AVIATION RESEARCH CENTRE AT MOFFETT FIELD, CALIFORNIA.

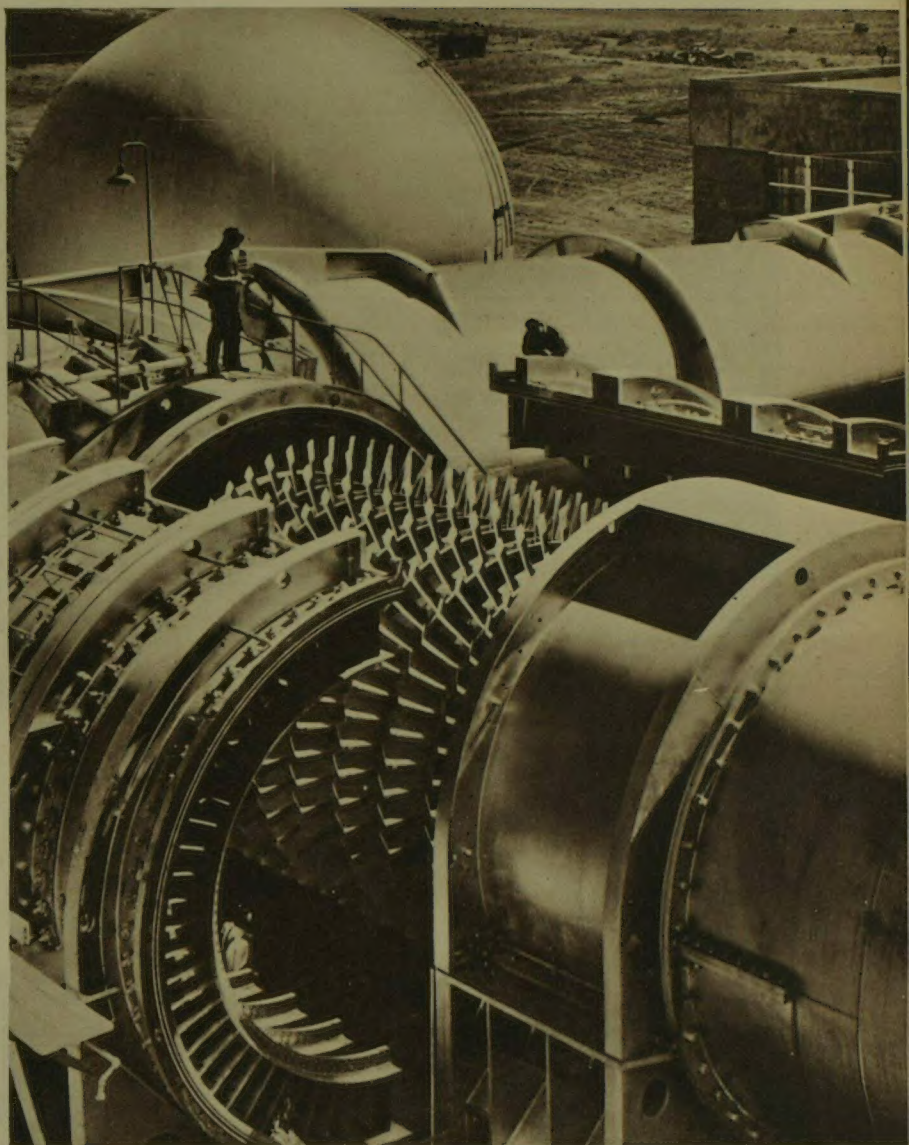


FIG. 2. WITH ITS COVER OPENED FOR INSPECTION AND MAINTENANCE: THE AXIAL FLOW COMPRESSOR WHICH PRODUCES WIND-TUNNEL SPEEDS OF UP TO 1500 MILES PER HOUR AT THE AMES LABORATORY.

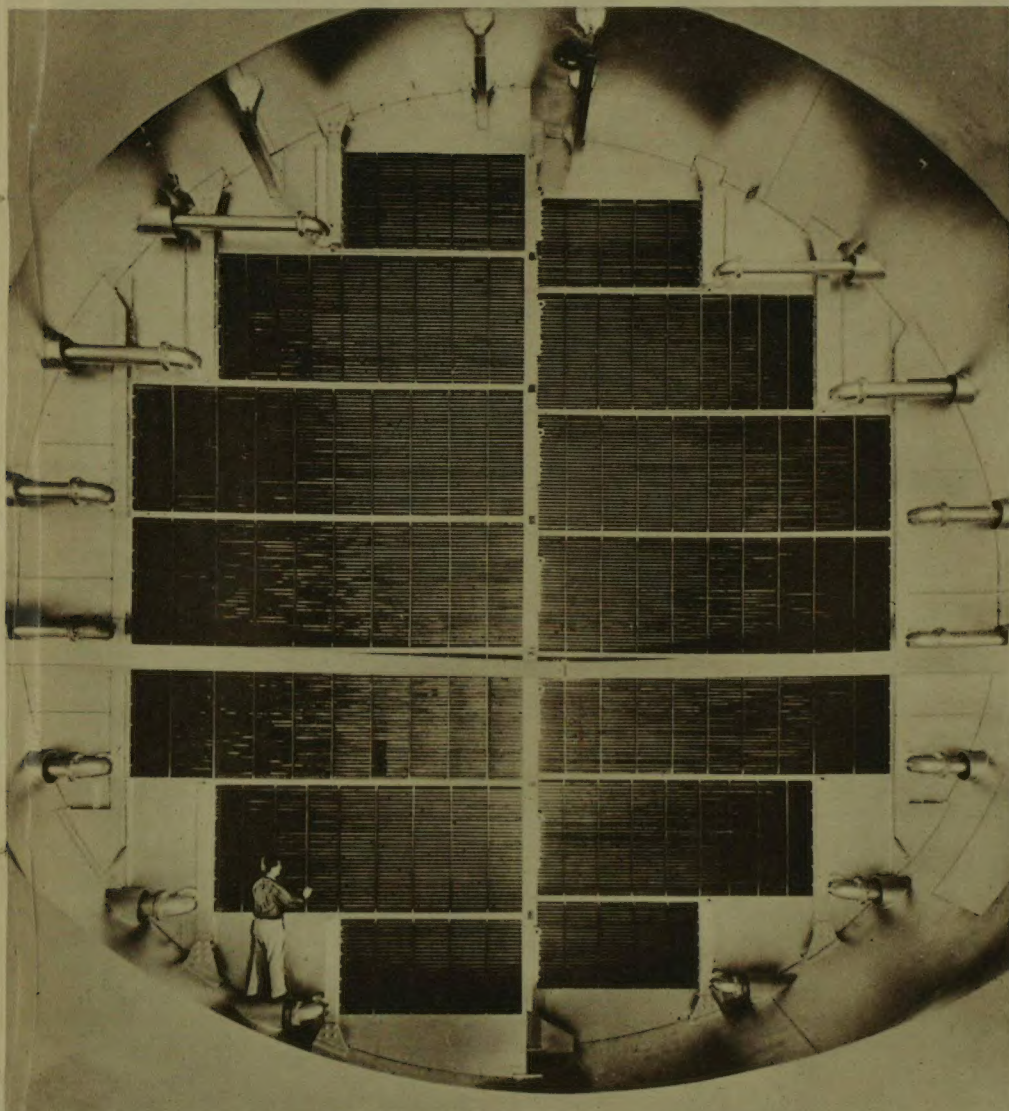


FIG. 3. PART OF THE HUGE WATER-COOLING SYSTEM WHICH DEALS WITH THE HEAT CREATED BY THE SUPERSONIC BLASTS OF AIR IN THE AMES LABORATORY WIND-TUNNEL.

PROBABLY the most useful and important tool of the aviation research scientist is the wind-tunnel. Wind-tunnels are, of course, no new thing, and in our issue of April 2, 1910, we described, in a tour of the National Physical Laboratory at Teddington, a "chamber" in which a dynamo produced a wind used for testing aircraft design and travelling at the great speed of 30 m.p.h. In the forty years since, the principle may have remained constant, but the speeds have altered; and in the wind-tunnel which we illustrate (Fig. 1) at Moffett Field, California, air can be pushed through the tunnel at speeds up to 1500 m.p.h. The tunnel there winds round three sides of the building; and two 25,000-h.p. motors coupled in tandem drive a huge axial flow compressor (Fig. 2) at any desired speed from 775 to 900 revolutions per minute, so pushing air through the tunnel at speeds between 840 and 1500 miles per hour. This blast of wind naturally generates a great deal of heat, which is controlled by a cooling apparatus in which 10,200 gallons of water are stated to circulate through ten miles of bronze tubing, with a superficial area of nearly 117,000 sq. ft. The test chamber (Fig. 4) is observed through 6-in.-thick windows of the highest grade optical glass, and models set up therein can be photographed by high-speed cameras when under full stress.



FIG. 4. SETTING A SWEEPED-BACK-WING AVIATION MODEL IN THE TEST CHAMBER OF THE WIND-TUNNEL. DURING OPERATIONS THE MODEL CAN BE WATCHED AND PHOTOGRAPHED FROM WINDOWS IN THE TUNNEL WALL.



PRIME MINISTER OF THE DOMINION OF PAKISTAN : LIAQUAT ALI KHAN, A STATESMAN WELL FITTED BY TRAINING, EXPERIENCE AND TEMPERAMENT TO GUIDE A YOUNG STATE THROUGH A PERIOD OF GREAT DIFFICULTY.

Liaquat Ali Khan, Prime Minister of the Dominion of Pakistan, has been described as the one man capable of wisely guiding the young State, building it up on a sound foundation, and pursuing the policy of the Muslim League—which he joined in 1923. For many years he worked with the late Mr. Jinnah, is indeed his political heir; and has grown in stature with his added responsibilities, and earned world-wide respect. Born on October 1, 1895, he was educated at the M.A.O. College, Aligarh,

Allahabad University, and Exeter College, Oxford; and is a member of the Inner Temple. He has long been a leading figure in public life in the sub-continent of India, and was a Member of the Viceroy's Executive Council, 1946, held the portfolio of Finance, 1946-7, and was a member of the Partition Council appointed to represent the future Government of Pakistan. As Prime Minister of the Dominion he is faced with many political problems, of which the dispute with India over Kashmir is the gravest.

Portrait Study by Elliott and Fry.



PRIME MINISTER AND MINISTER FOR FOREIGN AFFAIRS OF THE DOMINION OF INDIA, WHICH IS DUE TO BECOME A "SOVEREIGN DEMOCRATIC REPUBLIC" ON JANUARY 26: PANDIT JAWAHARLAL NEHRU.

The Dominions of India and of Pakistan were created by the Indian Independence Act, 1947, and on January 26 next India will become a "sovereign democratic republic," although remaining within the Commonwealth, of which the Republic acknowledges the King as head. It was on January 26 that the Indian National Congress used to celebrate "Independence Day," when the country was still under British rule. In an article recently published in *The Times*, it was pointed out that the new Constitution

of India "owes a great deal to Western political philosophy and especially to British liberal thought." Pandit Nehru, the Prime Minister, was born in 1889, educated at Harrow and Trinity College, Cambridge, and is a barrister-at-law, Inner-Temple. In 1920 he joined the non-violent and non-co-operative movement under the late Mahatma Gandhi, and was several times imprisoned for his political activities. He was Vice-President of the Indian Interim Government and Minister for External Affairs and Commonwealth Relations.

Exclusive Portrait-study by Karsh of Ottawa.

LAST week I wrote of the Far East in general. This week I am dealing with one of its most perplexing aspects, that of Indo-China. While there are serious disturbances in many parts of the world at the present time, and we are involved in an awkward one in Malaya, there is only one struggle which could be classed as a major "colonial war." This is not our affair but that of France, and it has been in progress for over four years. It is in Indo-China. In a message on the military aid talks dated December 16, the Washington correspondent of *The Times*, after speaking of the possible prohibition of the despatch of military material outside the area of the North Atlantic Treaty, remarked: "There is, however, another possible source of help in the Far East, should the French need it in Indo-China. Congress during the last session appropriated 75,000,000 dollars for the Far East—at that time presumably intending the money for the Chinese Nationalists. Its logical use now would be in those States which are next threatened by the advance of the Communists." This is true, though logic does not always prevail when it is opposed by sentiment, and public opinion might raise objections here too. There can be no question of the strategic importance of Indo-China or of the French difficulties in that country.

The resistance to the French has been organised and maintained by a remarkable man, the so-called President of "the Republic of Vietnam." Ho Chi-Minh is a Moscow-trained Communist, of great energy and either possessed of considerable administrative ability or capable of finding subordinates who possess it. In the propaganda put out on his behalf, much of which is in French and English and effective of its kind, insistence used to be laid on the non-Communist elements in his Government and supporters. For example, any declarations of opposition to France on the part of native Roman Catholics were always reported. The great success of the Chinese Communists and their approach to Indo-China seem to have brought about some change in this respect, and now the Communist aspect of the revolt has become more prominent. The Communists are certainly the dominating force. French policy has at times been hesitant, partly, it would appear, because the Socialist Party in the French Government has insisted on carrying on the war in a half-hearted way. Here, again, sentiment prevails over logic, because half-measures are useless in any kind of war. The only proper alternatives are to stop fighting or to fight hard. Military weakness has had its effect upon policy.

In 1948 the French dealt with a certain General Xuan in their search for a settlement, and it was arranged that he should become President of a Provisional Central Government with its capital at Hanoi. He was no more than a puppet and proved unsatisfactory. Presumably his point of view was that unless the French did more to assure his power and safety, he was not going to exert himself greatly or take big risks. The French had accepted him only because they had failed to secure a better man, who had constantly evaded them, but in 1949 he came to terms. He was Bao Dai, the ex-Emperor, a highly intelligent man, who had been doing the sort of things done by exiled princes from South-East Asia, driving cars very fast and playing cards on the Riviera with great zest and skill. In March it was arranged that Bao Dai should become Head of the State of Viet Nam, which was to be accorded "independence within the French Union," with the right to maintain a diplomatic representative to the Vatican. The French were to keep garrisons in the country and retain their military bases. Bao Dai arrived at Saigon on June 14. The experiment has thus been running only a short time, and it is too early to speculate on its prospects. What is clear is that it is encountering stiff opposition. And if Bao Dai has given satisfaction, this does not seem to apply to all his numerous entourage.

On the military side, France is maintaining in Indo-China an army over 100,000 strong, exclusive of very considerable native levies. Vietnam is believed to have something like 80,000 men under arms; but, as in most prolonged revolts, it is probable that there are many part-time combatants who fight when they are called out and then return to their ordinary avocations. Attacks on forts are fairly common, but the main feature of Vietminh tactics has been attacks on convoys, generally starting with ambushes. Since the French have a limited force in a large country, they inevitably depend on convoys, which have to cover long distances by road to reach the towns or forts held by their garrisons. It is not easy to obtain quick information about the Vietminh movements—though every detail comes in

A WINDOW ON THE WORLD. FRANCE IN INDO-CHINA.

By CYRIL FALLS,

Chichele Professor of the History of War, Oxford.

sooner or later—because the people in the neighbourhood are either friendly to the Communists or, as perhaps occurs more often, terrorised by them. In these circumstances convoy-running is a very arduous and dangerous task and casualties have amounted to as much as 1600 in bad months. On the other hand, the rebels are mobile, so that a band will disperse or fly with

great speed when a French column sets out to destroy it. It is an old pattern of revolt in primitive country.

The strain is not, however, confined to the French forces on the spot. It affects the whole French Army. It must be remembered that since the war the term of French conscription has been one year. This has rendered it impossible for any French conscripts to serve in Indo-China. Every French soldier serving

in that theatre is a professional, and French officers and under-officers are required for the African troops quartered there. I believe nine regular French under-officers out of ten are now in Indo-China, with the consequence that there are battalions in France and Germany which have none, or one or two at most. The rest are conscripts, who have been sent to one of the Ecoles de Cadres and given stripes, and who will leave the Army at the end of their year, just when they are becoming really useful. It is not easy to run a unit on these lines. Indo-China also imposes a heavy drain upon regular officers, though not, I understand, quite so heavy as upon the under-officers. Into the bargain, a large proportion of the defence budget has to be devoted to this war, for war it may be called. Finally, the trade of Indo-China, which was valuable to France, has been reduced to a small fraction of its pre-war volume.

It has been stated that at one time or another indifferent policy and tactics on the French side have proved an additional handicap. Of this I know nothing, but I do know of one further handicap. In a campaign of this sort mobility means everything, whereas French mobility is far below the standard required. The equipment sent out was in many cases not new to begin with, so that it may readily be imagined how difficult it is to maintain it, and especially to keep light tanks, armoured cars and vehicles running. A battalion or company striving to keep order in a district may be engaged in patching up half of its vehicles, or more, at any given time, so that it is like a one-armed man in the boxing-ring. In the circumstances it is not to be wondered at if the French have found their task a hard one. They may have made mistakes, but I fancy that some of their critics have been thinking in terms of military facilities which the executants have never possessed. It would mean a great deal to the French to obtain fresh equipment—not the most modern, but equipment in good condition—for Indo-China, under the Military Aid Programme, but it is not as yet certain whether the United States would allow them to have it.

There has been talk of the possibility of French military service being increased from one year to eighteen months, the period which is now in force in this country. This would, in theory, allow conscript soldiers to serve in Indo-China, just as our National Service men have gone to Malaya and Hongkong. There might, however, be social and political objections to this course. The powerful Communist party is bitterly opposed to the war, to which it always alludes as *la sale guerre*, while, as I have hinted, the Socialist Party is inclined to be lukewarm about it. It would be easy to work up emotion in France about young Frenchmen being torn from their homes and sent to fight in a war stigmatised as unjust, a "capitalist-colonial war." Coalition Governments are apt to be timid on ground such as this. Moreover, it would cost money, and France has little to spare, already finding it a strain to

maintain a military budget which represents a substantially smaller proportion of the national expenditure than does that of the United Kingdom. Still, an effort on new lines will have to be made if the affair is not to become a running sore. It may also be found advisable to make new dispositions, with greater concentration, but I do not know the situation well enough to venture a view on that.

A peaceful and satisfactory settlement is not to be despaired of, though it is by no means certain. The French Government is genuinely anxious for one which would carry with it a broad measure of independence to Viet Nam, while preserving France's strategic position. The United States Government has come to look upon her problem with more sympathy than was the case a year or two ago. Strong friendly elements exist, and the fact that they have survived so much French ill-fortune is proof that they are solidly based. When the negotiations were in progress about the time of the arrival of Bao Dai, the representatives of Cochinchina reserved the right to break away from Viet Nam if Viet Nam should break away from France. None the less, the French are hardly better off than they were four years ago and in some respects worse. While prophecy is unwise, there is one forecast which can be made with confidence: if the French effort is continued, it must be made on new lines and with fresh resources; otherwise matters will deteriorate rather than improve. The arrangement with Bao Dai may have been a fair start, but it was only a start.



"A HIGHLY INTELLIGENT MAN": BAO DAI, HEAD OF THE NEW STATE OF VIET NAM, WHOSE PORTRAIT IS SEEN ON THE FRONT OF THE CITY HALL IN SAIGON.



THE START OF A NEW AND IMPORTANT PHASE IN THE CREATION OF AN INDEPENDENT VIET NAM WITHIN THE FRAMEWORK OF THE FRENCH UNION: SIGNING THE CONVENTIONS IMPLEMENTING THE TERMS OF THE FRANCO-VIET NAM AGREEMENT OF LAST MARCH—A GENERAL VIEW OF THE SCENE IN THE CITY HALL, SAIGON, ON DECEMBER 30.

This week Professor Falls discusses the struggle in Indo-China which has been in progress for over four years, and which can be classed as a major "colonial war." The Communist resistance to the French, organised and maintained by Ho Chi-Minh, the so-called President of the "Republic of Vietnam," shows no signs of abating, and to-day, as Professor Falls says, "the Communists are certainly the dominating force." Since December 30, when the Emperor Bao Dai and M. Pignon, the French High Commissioner in Indo-China, signed the conventions implementing the terms of the Franco-Viet Nam agreement of last March, and the end of the Christmas truce between Dr. Ho Chi-Minh and the Franco-Viet Nam authorities, there have been signs of a new Communist offensive. On January 5, Emperor Bao Dai informed his Cabinet that he had decided to confine himself exclusively to the duties of head of the State, and would no longer hold the post of Prime Minister. The Government was therefore automatically dissolved, and the Emperor offered Nguyen Phan Long, formerly Minister for Foreign Affairs, the task of forming a new Government.

THE SCENE OF ANTI-BRITISH DEMONSTRATIONS: TAIPEH, FORMOSA.



THE SCENE OF RECENT CHINESE ANTI-BRITISH RIOTING: THE FRONT OF THE BRITISH CONSUL'S RESIDENCE.



TAIPEH IS UP-RIVER; AND THIS VIEW FROM THE CONSULATE LOOKS TO THE MOUTH OF THE TANSUI.



FORMOSA IS MOUNTAINOUS, WOODED AND BEAUTIFUL, AS SHOWN IN THIS VIEW FROM THE BRITISH CONSULATE.

TAIPEH, or Tei-pei (or, during the period of Japanese rule, Taihoku), is the administrative capital of Formosa and lies in the extreme north of the island, about 18 miles from the mouth of the Tansui River. The British Consulate there has been recently the scene of considerable anti-British demonstrations. The bad feeling arose over the British recognition of the Communist Government of China; and the sequence of events, although confused, appears to be as follows. On January 8 a few armed soldiers entered the Consular compound and demanded with threats of force that the flag be lowered. The building was also stoned and anti-British slogans painted on the walls. The Mayor apologised and a guard of four military policemen was posted. Two days later, following further stone-throwing, eight men armed with sub-machine-guns forcibly entered the compound and terrorised clerical officers into surrendering the flag. The Consul, Mr. T. Biggs, protested to the Governor of Formosa and, asked for a stronger guard.



THE FRONT OF THE BRITISH CONSULATE AT TAIPEH, WITH THE CONSULAR FLAG, WHOSE LOWERING WAS DEMANDED, FLYING IN THE BACKGROUND.



LOOKING FROM THE CONSULATE OVER THE TANSUI RIVER: THE BUILDING FROM WHICH THE UNION FLAG, WITH CONSULAR BADGE, IS FLYING IS THE 300-YEAR-OLD DUTCH FORT.



AN OLD CHINESE GATEWAY IN THE CONSULATE COMPOUND, LEADING TO THE OLD FORT. NOTE THE BRITISH ROYAL ARMS OVER THE KEYSTONE OF THE ARCH.



THE ELECTORAL MAP AFTER THE 1945 GENERAL ELECTION: HOW THE 640 CONSTITUENCIES VOTED FIVE YEARS AGO.

On January 10 it was announced that Parliament would be dissolved on February 3, that nominations for the General Election would close on February 13, polling would take place on February 23 and the new Parliament would meet on March 1. Since

the last General Election the constituencies have been drastically revised; and for the convenience of our readers we print here and on the facing page two maps—that on the left showing the 640 constituencies fought in 1945, with their party representation; [Continued opposite.



THE ELECTORAL MAP TO-DAY: THE 625 CONSTITUENCIES, MOSTLY REARRANGED OR NEW, OF THIS YEAR'S ELECTION.

Continued.] that on the right showing the 625 constituencies in which next month's General Election will be fought. Although many constituencies bear the same name as before, the boundary revision has been widespread, and only sixty-two out of the 542 constituencies of England and Wales are unchanged. The stated intention of the revision is that every seat should have a quota of about 60,000 voters. Perhaps the most striking change is the abolition of the twelve University seats.

Copyright Map, reproduced by Courtesy of "The Times."

IN AN ENGLISH GARDEN.

THE DAPHNES.

By CLARENCE ELLIOTT.



AS a family the Daphnes are pleasant to know. For one thing there are not too many of them. There is no swarm of dowdy,

poor relations as in so many families of plants. Willis gives the number of species as forty, and of these I have met personally about half. A few of them are outstanding beauties of the first order. The rest are mostly good, honest shrubs, and I have yet to meet a downright bad Daphne. *Daphne mezereum* is the

If folk had washed all the peat from *cneorum's* roots, and compelled the plant to make a clean start in loam, instead of trying to stay put in its peat, all might have been well.

Daphne verloti is a distinct and attractive variety of *cneorum*, smaller, rather more prostrate, and with smaller heads of blossom, which, however, are just as fragrant, and perhaps a shade deeper pink. I found it growing in great quantity last summer in the Dauphiné Alps, just below the Col de l'Izouard, on the Briançon side, and seeing it there I came to the conclusion that the plant which has been in cultivation for some years as *D. cneorum alba*, is not *cneorum* at all, but a white form of *verloti*.

For some reason or other, *Daphne striata*—which is somewhat akin to *cneorum* in habit—has always remained rare in gardens. It is, I think, a non-lime plant, though whether it is definitely a lime-hater, I cannot yet say. On the Col de Lautaret, where it grows in profusion, it certainly avoids the limestone formations. Its flowers, carried in heads as in *cneorum*, are a cool lilac pink, and intensely fragrant. At Lautaret there is a small, scattered colony of *D. striata* with snow-white flowers, whose half-opened buds are pale buff yellow. Both the lilac-pink and the white *striata* seem perfectly happy and healthy after two seasons in my very limy Cotswold soil. But seedlings would be better than collected roots, and some day I hope to find myself at Lautaret in late July when the bushes of *striata* are—as I once saw them—laden with golden berries.

The Chinese *Daphne genkwa* is a disappointing plant—in this country. It is not hardy—except in very mild districts—and it is scentless. But it is extremely pretty in flower.

A 3-4-ft. deciduous bush, with blossoms which look much like lilac, and which in colour are a rather blue-lilac tone. The trouble with *D. genkwa* is, I think, that our summers are not hot enough to ripen and harden its wood properly. I remember seeing a hedge of *D. genkwa* in America, in the Brooklyn Botanic Garden. It was about 3 ft. high and smothered with blossom. The winters there must be far more severe than any we get here, but on the other hand their summer heat is far more intense.

Daphne blagayana is a prostrate evergreen, with rather large heads of creamy-white, intensely fragrant flowers. It is a choice and always rather rare plant. Partly on that account, and partly perhaps because it belongs to rather a distinguished family, *D. blagayana* is always regarded with rather more awe

and respect than its beauty warrants. I confess, however, that I would be proud to possess a well-furnished patch of *blagayana*, two or

even three yards across, instead of the three small but hearty specimens which constitute my present beginnings. *Daphne odora* is the evergreen species, with thick stems, thick, laurel-like leaves, and heads of pink-and-white waxy blossoms, which is usually grown as a cool greenhouse plant. It is, however, far hardier than most people suppose. A fine, bushy 3-ft. bush of *odora* grows and flowers well in a Cotswold garden near where I live. It survived the terribly hard winter of 1946-47, and a shrub which will do that may surely be called hardy. The scent of *odora* is, I think, more powerful and delicious than that of any other species.

Daphne retusa is a very fine species, making a rounded evergreen bush, 2-3 ft. high and rather more across, covered in early summer, and again, less profusely, later in the year, with heads of pink, waxy, fragrant blossoms, which are followed by big scarlet berries. *Daphne "Somerset"* is a garden hybrid, a rapid grower, and easy to manage. In early summer its stems are wreathed with quantities of shell-pink flowers, scented in the best traditions of the family. Three-year-old bushes of "Somerset" in my garden are already nearly 3 ft. high. I have left my favourite Daphne to the last. *Daphne rupestris*, also called *D. petraea* (I believe *petraea* is the more correct name), is a small evergreen, slow-growing bush. It is rare, or rather very local in nature, inhabiting high limestone cliffs in a few restricted districts. Twice I have visited it on the Cima Tombea, and each time it was in flower. By starting



"PERHAPS THE MOST POPULAR OF ALL DAPHNES": A CLOSE-UP OF THE WARM PINK, SPICILY FRAGRANT BLOSSOMS OF *DAPHNE CNEORUM*, WHICH MR. ELLIOTT DEFENDS AGAINST THE ACCUSATION OF "CHOOSINESS."

Photograph by Donald F. Merrett.

old cottage-garden favourite which flowers in early spring. Erect-growing bushes, from 3 or 4, up to 5 and even 6 ft. tall, with leafless stems smothered from top to bottom with intensely fragrant pink blossoms. These are followed by glossy scarlet berries, which, unfortunately, are promptly eaten by birds. However, enough usually fall around the parent bush to provide seedlings, and it is a wise precaution to have a succession of youngsters coming on, as *mezereum* is not a really long-lived plant. The white-flowered variety has golden-yellow berries, of which birds are equally fond.

Daphne laureola, the Spurge Laurel, is a native, British-born, as also, by the by, is *D. mezereum*. It is an evergreen shrub 2 to 3 ft. high, best grown in half-shade. It flowers in early spring; clusters of yellowish-green blossoms, rather hidden among the glossy evergreen leaves at the summits of the stems. There has been much controversy as to whether *D. laureola* is, or is not, fragrant. Some declare that it is deliciously scented, whilst others swear that it is entirely odourless. The truth is that the fragrance is intermittent.

Perhaps the most popular of all Daphnes is *D. cneorum* (the "c" is silent, and a constant worry and stumbling-block). An evergreen, and at first bushy, 6 ins. or so high, it eventually trails. I have seen trailing leafless stems of *cneorum* 5 or 6 ft. long, with healthy leaf and flowers at their far extremities. In late May or early June come the clusters of warm, pink blossoms at the tip of every twig. Their scent is sweet, spicy, delicious and rather like some of the old garden pinks. *Daphne cneorum* is supposed to be difficult to grow, capricious, temperamental, or choosy as to what soil it must have. This is curious, for I have grown and flowered it well in stiff yellow loam, in almost solid clay, and in thin, acid, sandy loam. But I think I can guess the reason for *cneorum's* ill repute. Before the war it was imported in vast quantities from Holland; nice, fat, prosperous clumps, grown in rich, peaty soil, and their roots swaddled in sacking. Too often these plants were planted, just as they were, peat and all, in loam, stiff or otherwise. The roots detested the idea of growing out of their native peat into alien loam, and so never got away. At the same time the ball of peat sat in its setting of loam, like a loose peg in a large hole.



"A PROSTRATE EVERGREEN, WITH RATHER LARGE HEADS OF CREAMY-WHITE, INTENSELY FRAGRANT FLOWERS": *DAPHNE BLAGAYANA*.

Photograph by Donald F. Merrett.



THE GEM OF THE DAPHNE FAMILY AND ONE OF THE LOVELIEST OF ALL DWARF SHRUBS: *DAPHNE RUPESTRIS* IN THE VARIETY *GRANDIFLORA*. THE FLOWERS ARE WAXY, ROSE-PINK AND OF INTOXICATING FRAGRANCE.

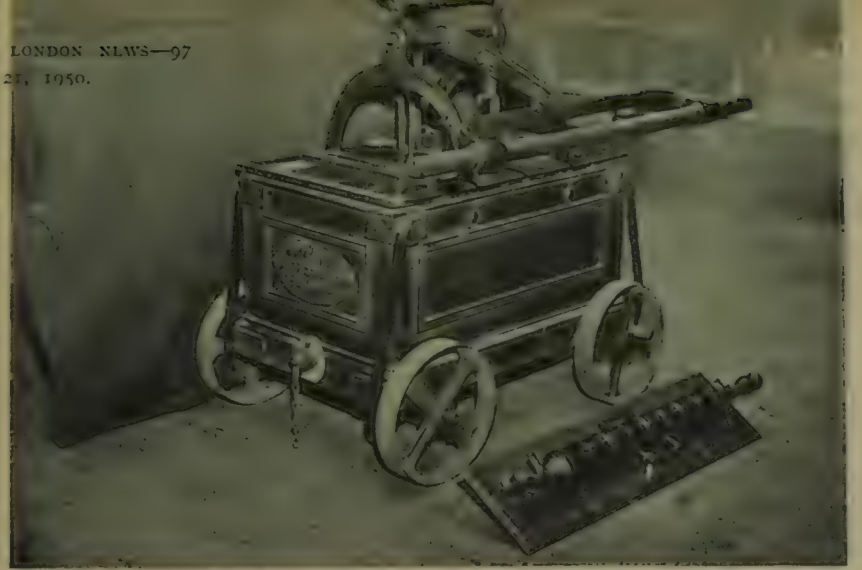
Photograph by R. A. Malby and Co."

at 5.30 a.m., one reaches it in the early afternoon. Sheer, towering limestone cliffs, with the Daphne packed into every crack and crevice, "pointing" them with dense masses of waxy rose-pink blossom whose fragrance was intoxicating. From all those acres of cliff I extracted, with great difficulty, enough small plants of *rupestris* to bring home and graft, and so start a race of grafted plants. In my experience, grafting is the only satisfactory way of growing this lovely shrub. I have had specimens on their own roots, and grown them for years—with never a flower. On the other hand, grafted specimens flower regularly from the start.

The Cima Tombea, as a station for *Daphne rupestris*, used to be a jealously-guarded secret. But I see no reason for keeping the secret. Why should not flower-lovers travel to the remote village of Storo, walk uphill, steeply, for some eight hours, look at the Daphne and enjoy it, extract a root, if they can, and then come down, taking another five or six hours, as I did? The Daphne is absolutely safe. Those terrible cliffs will see to that. Collectors are no more likely to denude the Cima Tombea of its Daphne than trippers are likely to denude the Eiffel Tower of its paint.



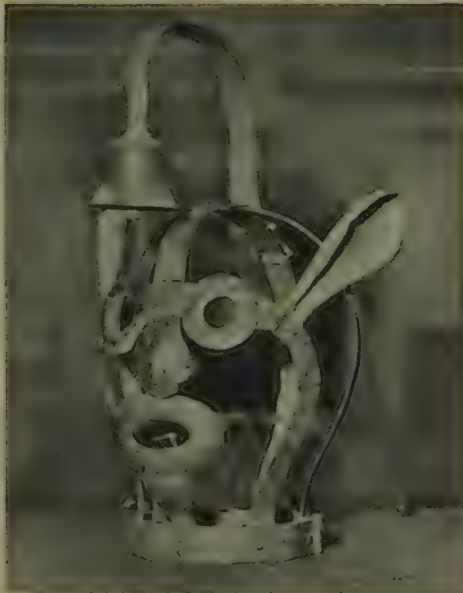
A PERAMBULATOR, OR PEDIMETER, A SQUARE BOX ATTACHED TO THE PIVOT OF A WHEEL, BEARING TWO DIALS, ONE DENOTING POLES, THE OTHER MILEAGE. C. 1725.



AN EARLY MANUAL FIRE ENGINE, C. 1810, AND, IN FRONT, A RARE FIREMAN'S SQUIRT, SAID TO HAVE BEEN USED AT THE GREAT FIRE OF LONDON, 1666.



A BRANK, OR SCOLD'S BRIDLE, OF USUAL TYPE AND HELMET FORM, COMPLETE WITH LOCK AND KEY. THE IRON PLATE OR BIT HELD THE TONGUE DOWN. 17TH CENTURY.



AN IRON SCOLD'S BRIDLE, IN THE FORM OF A GROTESQUE HEAD WITH EARS, SURMOUNTED BY A BRASS BELL. PROBABLY GERMAN.



A BONE-SHAKER, ALSO KNOWN AS THE PHANTOM MACHINE OF 1869. PROBABLY INSPIRED BY PIERRE LALLEMENT'S MODEL OF 1865.



A CONTINENTAL LEMON-SQUEEZER OF ELABORATE CONSTRUCTION SUPPORTED ON FLUTED COLUMNS AND SHAPED BASE; AND A TURNED, LIGHT WOOD LEMON-SQUEEZER WITH SCREW ACTION.



AN IRON CHIMNEY CRANE IN THE FORM OF A BRACKET WITH SWIVEL ADJUSTMENT. 18TH CENTURY.



A SEVENTEENTH-CENTURY BABY-TROTTER, WITH PADDED LEATHER SUPPORT. SUCH DEVICES ARE STILL IN USE IN ITALY AND EXAMPLES ARE ON SALE IN SHOPS IN PROVINCIAL TOWNS THERE.

REMARKABLE peeps into the domestic life of our ancestors are provided by the objects in the Francis Bussell Collection of Bygones, the first part of which was due to be dispersed at Messrs. Sotheby's yesterday, Friday, January 20. Mr. Bussell had his collection arranged in the form of a small museum in a barn adjoining his house at Underriver, and allowed visitors to inspect it on application. The objects which he assembled included tobacco jars, domestic and agricultural tools of every description, fire- and light-making appliances, and many other items. The Scolds' Bridles, in which unhappy women convicted of nagging or shrewishly scolding, were fastened, illustrate the brutality of the practice. The iron bit or plate in the helmet-shaped variety of



A MAN-TRAP WITH PLATFORM SPRING. SEVERAL LARGE MAN-TRAPS OF VARIOUS DEVICES ARE INCLUDED IN THE COLLECTION OF BYGONES MADE BY THE LATE MR. F. R. BUSSELL.

the usual type held the tongue down, acting as a complete gag. The German model illustrated added extra horror to the punishment by means of its grotesque form, and the bell which rang with every movement of the victim's head. More pleasant visions are conjured up by the kitchen equipment, some of which recalls the gargantuan roasts with which our unrationed forbears regaled themselves. The interesting and early Manual Fire Engine illustrated was by Merryweather, Long Acre, London. The tank is mounted on four wheels and is surmounted by two large horizontal handles for pumping. It came from Ashridge House. The Bone-shaker, also known as the Phantom Machine, must certainly have lived up to its name. The saddle is almost midway between the two wheels.

OBJECTS WHICH SHED LIGHT ON FACETS OF THE SOCIAL LIFE OF PAST AGES: A COLLECTION OF STRANGE BYGONES.



THE WORLD OF SCIENCE.

A BEACH-BALL MYSTERY AT TORBAY.

By LINDA M. NEWTON, B.Sc.

IT happened during the night. The following morning, October 14, 1949, it was noticed that the shore round Torbay, Devon, had suddenly become clothed in green. A closer examination made by the more inquisitive showed that innumerable green balls had appeared at high-tide level. Millions of them, a 10-ft.-wide belt extending for at least a mile along the coast, each ball having an average diameter of an inch. A simple calculation shows that in a single layer there would be more than 7,500,000. And reports give the depth as 9 ins. The phenomenon has aroused a great deal of interest in the neighbourhood, especially as not even the fishermen recollect having seen its like before. A correspondent living near Paignton says: "Our first impression on seeing them at Broadsands was that something had been washed up from a wreck, and we were amazed at the huge number as we approached where they lay at the Torquay end of the beach."

The dark-green balls are of a spongy texture, and consist of fine threads matted together. They reach a diameter of up to 2 ins., and although occasional ones are sausage-shaped, they are mostly spherical. The green threads have been identified as the alga *Cladophora repens*, which is only rarely washed up round our shores, though common enough in the Mediterranean, and known also from the coast of France. The alga was originally described from Jersey by Harvey in his "Phycologia Britannica," 1846, and the only subsequent records for Britain are from the coasts of Northumberland and Dorset.

This filamentous seaweed has close relatives living in freshwater lakes, under certain conditions producing similar balls. They have been collected, for example, from Loch Kildone, South Uist, Outer Hebrides, from Lake Soro, Denmark, and from Lake Akan, Hokkaido, Japan, where they are said to vary from the size of a pea up to that of a child's head: they lie in heaps on the humus soil at a depth of a few metres and are often washed ashore by the waves. It is recorded, too, that floating balls have occasionally occurred in such great numbers on the Norfolk Broads that they have been troublesome to the wherry-men, who fished them out with large nets.

These freshwater forms have been studied by several workers, and much has been done to elucidate the details of their formation. The filaments grow up from a hard, sandy bottom and, as they branch,

but it is interesting to note that, when detached, there may be a complete reversal of polarity, for it is then able to grow at either end. There is evidence that matting together of freshwater *Cladophoras* at least is not entirely mechanical. *Cladophora* balls have been kept living for eight years in a small dish exposed to unnatural conditions, and yet there appeared to be no tendency for them to lose their shape and spread

are apparently formed of annual plants, are quite solid, and are not built up round a core of extraneous matter.

Similar compact masses are formed from detached pieces of other kinds of plants. In 1935, two moss balls were found by Dr. Miyoshi in Lake Inawashiro, Japan. The moss, *Dicranella squarrosa*, commonly lives under water and had been rolled into balls by currents in the lake.

Well known round the coast of the Mediterranean and most of the coast of Australia are balls of *Posidonia*, the "Fibre-ball Weed." *Posidonia* is a genus of monocotyledonous flowering plants containing two species, *Posidonia caulini* of the Mediterranean, and *Posidonia australis* of Australia. It is aquatic and has been found growing at a depth of up to 50 metres, which is believed to be the record for a flowering plant. The plant has the long, narrow leaves typical of monocotyledons. These leaves have fibrous sheaths at their bases which persist long after the leaves decay. The fibres gradually become matted together as they are rolled up and down the beach by the waves. *Posidonia* balls are much more open-textured than *Cladophora* balls, and are often elongated owing to their being formed about a hard core of root stock. They may be cast up in considerable quantities, and are even known to have been used commercially for making paper, mattresses, and the like.

All the balls have at some time or other been given the name "*Ægagropila*," and the origin of this name is rather interesting. First used as a species named by Linnaeus in his "*Species Plantarum*," 1763, it really means "goat-ball," for he had in mind the balls that occur in the stomach of the Bezoar goat, *Capra ægagrus*. These are also found in other ruminants, and are very similar in colour, form and size to the sea-balls of *Posidonia*, for example. "*Ægagropila*" is still used as a species name in several cases, and for a sub-genus of the genus *Cladophora*.

The textbooks say that *Cladophora repens* is "rare" for the British Isles. Accordingly, one wonders what should have caused the sudden arrival of prodigious quantities along a limited stretch of our south-western coast. As far as could be ascertained by correspondence, it has been cast up only on the shores of the southern half of Torbay. The balls have undoubtedly

been produced as a result of the rolling action of a current, as with the freshwater forms, but where the plants originally grew, and by what circuitous route they reached our shores, remains as yet a mystery. There

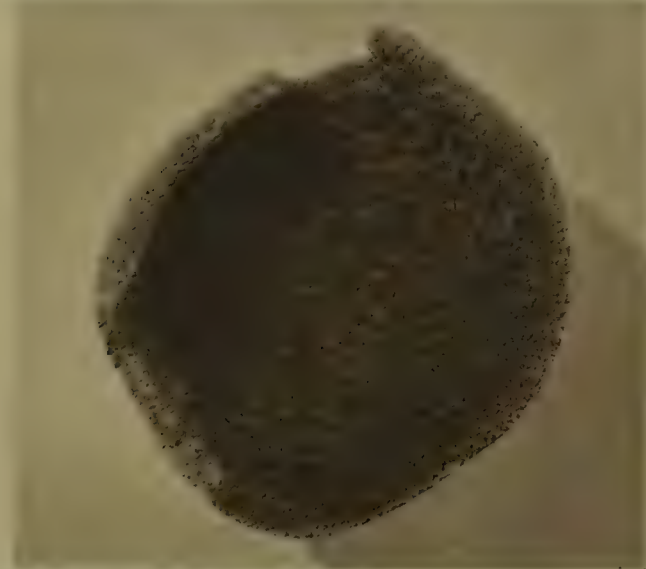
A MYSTERY OF THE DEVONSHIRE COAST: (TOP) BALLS OF *Cladophora repens*, SOLID AND DARK GREEN IN COLOUR, WHICH WERE WASHED UP IN TORBAY LAST OCTOBER, AND AVERAGED 1 INCH IN DIAMETER; AND (BELOW) BALLS OF *Posidonia caulini*, WHICH ARE LOOSER IN TEXTURE THAN *Cladophora* AND LIGHT BROWN IN COLOUR.

out along the dish. Wenberg-Lund studied the plants on Lake Soro, Denmark, intensively for several years, and came to the conclusion that branching occurred in such a way that one thread is hooked to another; there is incessant destruction of branches directed towards the exterior owing to the rolling on the sandy floor and new branchlets are constantly being produced.

Freshwater *Cladophora* balls have a restricted distribution: they are formed only in certain lakes where suitable conditions prevail. Only in shallow water is wave action sufficient to induce rolling, but here the plants do not normally grow so well, owing to the high light-intensity. In Lake Soro, however, there is such a large quantity of plankton (microscopic surface-living organisms) that much of the light is screened from the *Cladophora* plants. In April and May the plankton screen is at a minimum and the increased light-intensity causes increased photo-synthesis—that is, the process by which carbon dioxide is taken into the plant, and oxygen given off, in the manufacture of sugars and starch. The filaments give off larger amounts of oxygen, which collect in the centre of the balls, causing them to float to the surface and be cast up on the shore.

As the balls enlarge they become hollow, because the threads in the centre die away. Some are even known the size of a football, and these consist merely of an outer shell of filaments. When such a ball is cut in half, it may show a series of concentric zones of growth, which are quite possibly annual rings. The marine balls from Torbay, which have recently been examined, do not show this structure, however. They

seems, however, to be some evidence for the view that warm water currents in the Channel may have come from the Mediterranean. One may venture to suggest that the *Cladophora* balls have been carried by these currents to Britain from that sea. Even so, that does not tell us precisely the nature and conditions of their formation, and we are, for the moment, left to assume their similarity with the better-known freshwater forms.



CUT IN HALF TO SHOW THE HOLLOW INTERIOR AND CONCENTRIC ZONES OF GROWTH: A SPECIMEN OF *Cladophora sauteri* FROM LOCH KILDONE, SOUTH UIST, OUTER HEBRIDES.

tend to become tangled together in clumps. Then, if there is a continuous gentle current, the small masses sway to and fro, eventually being torn away and moulded into balls. The plants continue to live, and, in fact, it seems that the filaments are induced to branch more vigorously at their broken ends, thus helping in compact ball formation. The attached filament can naturally grow only at the one free end,



FOUND GROWING IN 4 FT. OF PRACTICALLY STAGNANT WATER IN THE BED OF A STREAM ENTERING LOUGH BALLYCULLIN: A LARGE SPECIMEN OF *Cladophora holsatica* (6 INS. IN DIAMETER).



A RECENT PERFORMANCE OF BU-GAKU IN THE SHINJUKU IMPERIAL GARDENS, WHERE IN THE PAST ONLY THE IMPERIAL HOUSEHOLD WERE PERMITTED TO WITNESS IT. ON THIS OCCASION MANY GUESTS WERE INVITED.



A BU-GAKU DANCER GIVING HIS PERFORMANCE. DURING THE TOKUGAWA RÉGIME (1603-1868) THE DANCES WERE PERFORMED ANNUALLY AT THE SHISHIUDEN PALACE, KYOTO, BUT IN THE MID-NINETEENTH CENTURY THEY LAPSED.

THE impressive Bu-gaku dance, given in costumes of such beauty and value that they are scheduled as National Treasures of Japan, is illustrated on this page. It is a Court dance of ancient Continental Asiatic origin, which, according to legendary story, was introduced to Japan from Korea after the Empress Jingō had sent an expedition against that kingdom in 200 A.D. In later centuries other Bu-gaku experts were introduced into Japan, and the Prince Regent Shōtoku Taishi (572-621 A.D.), the father of Japanese Buddhism, established a dancing institute at the Shitenno-ji Temple in Osaka, where Korean dancing was taught so that it might be performed at the Buddhist services. During the Tokugawa régime (1603-1868), the Bu-gaku dances were given annually at the Imperial Palace at Kyoto, but at the close of the dynasty they began to lose their popularity and gradually fell into disuse. Upon the restoration in 1868 of the Imperial Administration, the Court musicians and dancers were newly-appointed and the Bu-gaku was given at the New Year dinner-party held at Court on January 5 every year. Danced by nobles, the Bu-gaku was witnessed only by the Court. Since the occupation of Japan the dance has been reintroduced and performed before the public at the Imperial Theatre, Tokyo, and at the Shinjuku Imperial Gardens. The dance represents battlefield scenes and Court manners and customs of the countries of its origin. The musical instruments as well as the magnificent costumes are scheduled as National Treasures.



ATTIRED IN COSTUMES AS RICH AS THOSE WORN BY THE DANCERS: THE ORCHESTRA OF THE BU-GAKU DANCES. THIS CONSISTS OF ONE HUGE DRUM, SMALLER ONES OF DIFFERENT DESIGN, AND NUMEROUS FLUTES AND GONGS.



AN OBJECT OF ADMIRATION FOR THE AUDIENCE OF SMALL CHILDREN: A DANCER IN THE STATELY AND ELABORATE WARRIOR'S COSTUME WALKING WITH MEASURED STEPS TOWARDS THE STAGE ON WHICH HE IS TO PERFORM.



A VIEW OF THE GREAT GONG WHICH IS STRUCK TO INDICATE THE CLIMAX OF THE PERFORMANCE. THE GORGEOUS INSTRUMENTS AND MAGNIFICENT COSTUMES OF THE BU-GAKU ARE LISTED AS NATIONAL TREASURES.

ONCE PERFORMED BY NOBLES FOR THE COURT ALONE: THE JAPANESE BU-GAKU DANCE.



SPIRITUAL HEAD OF THE LARGEST CHRISTIAN COMMUNITY IN THE WORLD.
THE SUPREME PONTIFF, HIS HOLINESS PIUS XII.

During 1950, the Holy Year, or Jubilee Year, thousands of pilgrims will visit Rome and many of them will seek audiences with his Holiness the Pope. The Pope, Pius XII. (Eugenio Pacelli), was born in Rome on March 2, 1876; he was Nuncio in Munich, 1917-25; and was created a Cardinal in 1929. He was Papal Secretary of State from 1930 until his coronation as Pope on March 12, 1939. The Pope is a great linguist, being able to speak fluently in Latin, Italian, French, English, German and Spanish. He can also converse in Portuguese and Hungarian. He knows Germany and France well, and has preached from the pulpit of Notre Dame in Paris. His Holiness has also been to England, having visited this country on two occasions. The Roman Catholic population throughout the world is reckoned at 400,000,000 souls, yet, seventy years ago, only eight countries were officially represented at the Holy See by ambassadors or ministers. To-day the number is forty-one. This number not only includes countries such as Poland, where the population is exclusively Catholic, but England, the Netherlands and Finland, where only a minority are Catholic. Countries such as China, Egypt and India, where

the majority of people are non-Christian, are also represented. In its diplomatic relations with foreign countries, the Holy See is represented by the Secretariat of State. The Pope is, however, pledged to a perpetual neutrality in respect of political disputes between Governments and to abstention from international congresses called to cope with them, unless his mediation is specifically requested by both parties to a dispute. The principal method by which the Pope endeavours from time to time to exert influence on the course of political developments is the issue of "encyclicals" or circular letters addressed to Catholic bishops throughout the world, laying down the principles by which Roman Catholics should be guided with reference to the particular problem under discussion. At this time of profound gravity in world history, when Christians in the Communist-controlled countries find their Church attacked, and can only practise their religion under disabilities, it is indeed fortunate that the Roman Catholic Church has found in the person of his Holiness Pope Pius XII. one so well qualified to lead it in its struggle which may become increasingly bitter in the future.

Exclusive Colour Portrait Study by Karsh of Ottawa. (World Copyright Reserved.)

Continued.

may attempt to raid the ripening grapes. When the harvesting starts, Jerez is practically denuded of able-bodied men. All are in the vineyards; and each vineyard-keeper's house becomes a communal centre, where workers eat and sleep. During the *vendange*, the pressing, which in the majority of vineyards is still done by trampling the grapes, never ceases. Feet are perpetually stamping, backs bending

[Continued below.]



KEEPING WATCH AND WARD OVER THE RIPENING GRAPES: THE VINEYARD FOREMAN IN HIS SPECIALLY-CONSTRUCTED LOOK-OUT, READY TO SPOT ANY ATTEMPT TO RAID THE CROP.

SPAIN is a traditionally leisurely country, but when the time of the *vendange* comes, all symptoms of *mañana* disappear, and the whole population of the grape country is mobilised for work at high pressure. In the sherry district south from Seville lies Jerez-la-Frontera, surrounded by sun-baked slopes on which grow the sweet, green grapes which produce the most famous of Spanish wines. These

[Continued below.]



THE DRYING-GARDEN OF THE VINEYARD: THE RIPE GRAPES ARE LAID OUT IN HEAPS ON STRAW MATS. THE ACTION OF THE SUN INCREASES THEIR SUGAR CONTENT.

Continued.

under loads all day and night until every bunch is gathered, and the juice or *must* has gone to begin its long wait in the maturing-sheds of the Bodegas. The *vendange* is always followed by a Festival, in which everyone joins. Some vineyards are, however, becoming mechanised, but it will be many years before modern scientific methods everywhere displace the traditional ways.



A CONFERENCE BETWEEN OWNER, FARMER AND VINEYARD FOREMAN AS TO WHEN THE HARVESTING SHOULD BEGIN: THE GRAPES ARE EXAMINED AND TESTED FREQUENTLY

Continued.

grapes are covered with a fine film of white dust from the soil, said to ensure the special flavour of the wine. As the time of the *vendange* approaches, consultations take place between the landowner, the farmer and the vineyard foreman, as the grapes must be picked at the right moment—determined by tasting and examination. During the critical period before the harvest call goes out the grower gets little sleep or repose. Most of his time is spent patrolling or watching his vineyards. The foreman must keep guard in a specially-constructed look-out, as thieves

[Continued above.]



SHOWING THE WHITE DUST WHICH COVERS THEM AND IS SAID TO ADD TO THEIR FLAVOUR: THE VINEYARD FOREMAN WITH A BUNCH OF PALOMINO (SHERRY) GRAPES HE HAS BEEN INSPECTING.

WHEN JEREZ TOWN IS EMPTIED OF MEN: THE VENDANGE IN THE SHERRY COUNTRY.



STANDING ANKLE-DEEP IN THE SWEET WHITE GRAPES FROM WHICH SHERRY IS MADE: A LABOURER ENGAGED IN SHOVELLING THE RIPE BUNCHES INTO THE MOUTH OF A MECHANICAL PRESS.



SWINGING TOGETHER IN RHYTHMIC MOTION: THREE MEN BEGINNING TO TRAMPLE OUT THE GRAPES IN TRADITIONAL STYLE, USING THE WOODEN SPADES TO STEADY THEMSELVES.



PREPARING FOR A SECOND PRESSING BY MECHANICAL MEANS: THE PULP WHICH REMAINS AFTER PRESSING BY TRAMPLING IS PACKED ROUND A VERTICAL THREAD.



A CHARACTERISTIC FIGURE IN THE VINEYARD: ONE OF THE MEN CARRYING A MATFUL OF GRAPES WHICH (AS ILLUSTRATED ON OUR FACING PAGE) MUST BE DRIED IN THE SUN.



A FURTHER STAGE IN THE SECOND PRESSING: THE MASS OF PULP PACKED ROUND THE VERTICAL THREAD IS THEN SECURELY BOUND WITH STRAW BANDS.



THE SECOND PRESSING IN PROGRESS: THIS PRESS IS WORKED BY SCREW PRESSURE AND LEVERAGE. THE JUICE OOZES THROUGH THE PACKED MASS.



THE THIRD AND FINAL PRESSING: THE PULP IS PLACED IN STRAW MATS UNDER HYDRAULIC PRESSURE WHICH EXTRACTS EVERY DROP OF JUICE AND LEAVES THE SKINS BONE DRY.

THE WINE PRESS IN SPAIN: TRAMPLING OUT THE GRAPES IN TRADITIONAL STYLE BY RHYTHMIC STAMPING AND CRUSHING THEM BY HYDRAULIC POWER IN THE SHERRY COUNTRY.

On our facing page we illustrate in colour scenes of the *vendange* in the sherry country near Jerez, in Spain; and on this we give photographs of the pressing as carried out in a typical vineyard in the district. The grapes, after having been dried in the sun—as shown in one of our colour photographs—undergo three pressings. The first is the traditional trampling underfoot. The men wear special nail-studded boots to avoid any danger of slipping, and all swing together in rhythmic motion. The

pressed juice runs off the sloping floor of the press into channels. The remaining pulp is then gathered together, packed round a vertical thread, and closely bound round with straw bands. The press is then operated by hand. It works by screw pressure and leverage, and the juice oozes through the packed mass and runs away. Finally the pulp is placed in straw mats and undergoes a third pressing by hydraulic power. The remaining dry skins are useless save as fertiliser.

THE ANIMAL KINGDOM—FROM AMCEBA TO ZEBRA.

"THE STORY OF ANIMAL LIFE": By MAURICE BURTON, D.Sc.*

An Appreciation by SIR JOHN SQUIRE.

WHEN I was a small boy, I was introduced to Natural History by a book (with that name, I think) by the Rev. J. G. Wood—an introductory work in one volume, with numerous cuts. I do not know now how comprehensive it may have been, because the more exotic creatures stuck mostly in my mind and memory. I remember the account and picture of an ant-eater, but none of any ants (though I think a termite-hill was shown), ants being more familiar to me in my daily life than were ant-eaters; and, though I feel sure that it was from those pages that I first learnt that the sword of the swordfish could drive through a thick plank and that the horn of the narwhal possibly gave rise to the legend of the unicorn, if there was much else about fish I have forgotten it. But clear in my memory live the descriptions of the mammals and greater birds in their classes, the larger and the lesser cats, the deer, the elephants, the rodents, the ruminants, the cassowary and the emu and the rhea, the whales and the manatee or dugong. The dodo had an honoured place, though he had proverbially shared Queen Anne's fate about her own time; the quagga was there, which has also now been exterminated by man; the bongo and okapi were not there, as they had not yet been discovered. But it was an excellent introduction to our fellow-inhabitants of the world, and well-calculated to stimulate a lasting desire for further information.

There may have been successors of that book; but I haven't come across any except one by the late E. G. Boulenger, published not long before the late war, I think, by the Bodley Head. Whether "juvenile," "popular" or scientific, books tend now to confine themselves to special limited fields; young boys, anyhow, are mostly more interested in model aeroplanes than they are in pumas, flamingoes or stag-beetles. But for one of my generation it is pleasure to come across a new book about animals in which one could look up almost anything one would be likely to wish to look up. This large new compilation—printed in Holland, and contributed to by scholars in the United Kingdom, the U.S.A., Holland and Belgium—is hardly a book for the young. It is heavy in hand; few parents would wish to spend three guineas on a work destined rapidly to be



EXTERMINATED BY MAN'S "WANTON AND AVARICIOUS SLAUGHTER": THE PASSENGER PIGEON (RIGHT), A BIRD SO ABUNDANT IN AMERICA IN 1866 THAT A FLOCK IN FLIGHT OBSCURED THE SUN FOR FOURTEEN HOURS. IT WAS A LONG-WINGED BIRD WITH A SLENDER TAIL, COLOURED BLuish AND FAWN, WITH A SLATE-COLOURED HEAD AND PURPLISH-BROWN BREAST.

(Photograph by Courtesy of the National Audubon Society, New York.)

have daunted me; I might have fled dismayed to Dr. Grace's averages.

Yet I believe that, if the eminent editor of this work could bring himself to consent to some compression and mutilation, a thoroughly valuable smaller and simpler version of it could be produced for the young, and the curious but uninstructed adult. The pictures, or a selection from them, could stand as they are. Even the young model aeroplanist's attention would be arrested by that grim, aquatic creature of whom it is written: "Resembling some prehistoric monster, the Dragon-fly larva lives beneath the water and travelled about by jet-propulsion long before man ever dreamed of such an invention. The larva has an apparatus at the end of its body by which it can project water with a strong force, propelling the insect through the water at a rapid speed." For that matter, the prehistoric monsters are themselves here, reconstructed and photographed. But so are the familiar beasts of the field and birds of the hedgerow; the robin is here, as well as the plesiosaurus; and the theory of the reptilian origin of birds makes a link between them.

As for the book itself, there is plenty of fun in it for the person who, like Kipling's soldier, finds his most delightful occupation "for to be old the world so wide"; there is a good grounding for those who wish to make a scientific approach; and there are salutary reminders for the greedy who slaughter indiscriminately and the dense and ignorant who scorn the acquisition of knowledge for knowledge's sake, not realising that almost any new discovery may prove useful and even

(which should make their ears prick up) lucrative. "Again and again," says the editor in his Preface, "the lesson has been pointed that the seemingly unimportant is, in fact, the all-important. Who of the early microscopists who studied out of sheer interest the minute foraminifera

could have foreseen their great significance in the search for petroleum? To-day, the systematic study of the foraminifera is regarded as being of such importance that it is heavily subsidised by the oil companies themselves. Or, again, what could be more seemingly unimportant, economically, than the tunicates, yet, if we knew more of the life-histories of these strange animals, a solution of the fouling of ships' bottoms, so costly annually in time, materials and money, might be nearer attainment." And wanton and avaricious

slaughter can have deplorable results. The most notable example of man's recklessness in this sphere is the fate of the American Passenger Pigeon, which was edible and, consequently, saleable. "There was once a pigeon in North America. It is no longer there. The most remarkable thing about it was,

however, the tremendous numbers in which it existed. Audubon records a flight of them continuing for three days without a break, and for three hours out of these three days he estimated that a billion passed overhead. Ross King, in 1866, saw a flock which obscured the sun for 14 hours and was 300 miles long and 1 mile wide. . . . Alexander Wilson, in 1832, estimated a single flock, seen near Frankfort, in Kentucky, to consist of at least 2,230,270,000 birds. . . . By September 1, 1914, those vast hordes were gone, and the species extinct, and one more name was added to the long list of animals exterminated by man." The last survivor of all those multitudes (they could have learnt something about survival from the English wood-pigeon) died in a zoo—as perhaps the last panda will later on. They flew so densely that one shot from a swivel-gun could bring down 200, and roosted so closely and tamely that "3000 at a time in one sweep of a net has been recorded."

Until international action was taken (in the interests of the oil industry) it looked as though the whales might follow the pigeon into limbo. The Right Whales, which were of old numerous, were hunted almost to extinction. The Blue Whales, of which 30,000 a year are slaughtered, could hardly expect to survive without control in an era of factory-ships and harpoons with explosive charges on them. The quagga, which was killed off in our own day, once existed in enormous numbers at the Cape: "Q is for Quagga" was a stock line in the Victorian child's alphabet.

And replacements as a sort of consolation? It seems likely, we are told, that the okapi will prove to be the last animal of large size brought to light—new small ones, of course, are constantly being discovered. "There are still reports of others and it remains to be seen whether there is any truth in these reports. Three that spring readily to mind are the Nandi Bear, the Sea Serpent, and a single report of a large ape-like Anthropoid in South America where no apes have ever been seen."

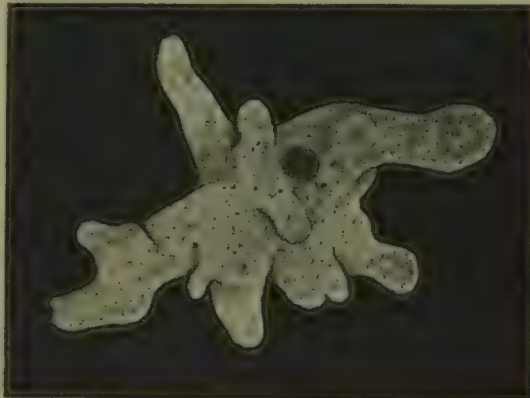
Perhaps these reports will prove to have as simple an explanation as that of the strange beast which was recently washed ashore at Suez. It was described as being a whale-like beast, but with a snout like a tapir and tusks like an elephant, but it has now been definitely identified as a whale (probably a Sei Whale).

* Novels are reviewed by K. John, and other books by E. D. O'Brien, on page 112 of this issue.



DR. MAURICE BURTON, THE AUTHOR OF THE BOOK REVIEWED ON THIS PAGE.

Dr. Burton, who has been deputy-keeper of the Department of Zoology at the British Museum (Natural History) since 1948, originally intended taking a history degree, but he developed an interest in natural history while serving on the Western Front during World War I. The author of numerous scientific papers on sponges, he has contributed many articles on natural history subjects to national daily newspapers and periodicals. Since 1946 he has edited and contributed to "The World of Science" page in *The Illustrated London News*.



USUALLY TAKEN AS THE STANDARD OF PRIMEVAL LIFE, ALTHOUGH WE NOW RECOGNISE IT TO BE A COMPLICATED, THOUGH PRIMITIVE, ORGANISM: *Amoeba Proteus*.



A DEEP-SEA ANGLER-FISH FROM THE ATLANTIC LIVING AT A DEPTH OF 273 FATHOMS: *Linophryne arborifer*. THE LANTERN-LIKE ORGAN ON THE FRONT OF THE HEAD IS LUMINOUS AND ACTS AS A DECOY TO LURE OTHER FISHES WITHIN RANGE OF THE VICIOUS TEETH. THE BUSHY BARBEL HANGING DOWN FROM THE CHIN IS POSSIBLY LUMINOUS ALSO, AND MAY, IN ADDITION, ACT AS AN ORGAN OF TOUCH.



A GRIM AQUATIC CREATURE WHICH SHOULD "ARREST THE ATTENTION OF EVEN THE YOUNG MODEL-AEROPLANIST": THE DRAGON-FLY LARVA LIVES BENEATH THE WATER AND TRAVELLED ABOUT BY JET-PROPULSION LONG BEFORE MAN EVER DREAMED OF SUCH AN INVENTION. Illustrations on this page reproduced from the book "The Story of Animal Life," by Courtesy of the Publishers, Elsevier Publishing Company, Ltd.

* "The Story of Animal Life." By Maurice Burton, D.Sc., Deputy Keeper, Department of Zoology, British Museum (Natural History), London. With special articles contributed by Zoologists of various countries. Vol. I.—"The Framework of Animal Life: Invertebrates." Vol. II.—"Vertebrates." Over 1000 Illustrations in Black-and-White and Colour. (Elsevier Publishing Co. Ltd., £3 3s. the set.)

THE SUEZ "SEA-MONSTER": VIEWS OF THE TRANSMOGRIFIED SEI WHALE.



THE "SEA-MONSTER" MAKES ANOTHER APPEARANCE: A VIEW OF THE DECOMPOSING BODY OF A LARGE WHALE (PROBABLY A SEI WHALE) WHICH WAS WASHED ASHORE ON THE BEACH AT SUEZ ON JANUARY 3 AND WAS REPORTED TO HAVE TWO TUSKS EIGHT AND A HALF FEET LONG.



THE HEAD OF THE SUEZ "SEA-MONSTER": A PHOTOGRAPH SHOWING THE LONG, POINTED "SNOUT," THE TWO TUSKS AND THE BLOW-HOLE (TOP; CENTRE OF "SNOUT"). THE "TUSKS" ARE THE BONES OF THE LOWER JAW OF A WHALE.

From time to time the carcasses of large marine animals are washed ashore in a state of advanced decomposition, so that their real nature is often difficult to recognise for certainty. It is not surprising, therefore, that such discoveries have given rise to much speculation and have formed the basis of numerous accounts of "sea-monsters." Such a case occurred recently at Suez, when the body of a large whale (probably a Sei whale) was washed up and came to rest on the shore in the position

shown in the above photographs. The published descriptions of the "monster" told of a sharp-pointed snout and a pair of long tusks which were, in fact, the bones of the lower jaw, from which the flesh had fallen away. Firmly held, however, by the flesh at the base of the skull, these bones have diverged in the manner of tusks. The "snout" is merely the triangular upper jaw, with the blow-hole clearly seen on the top.

AN ATTRACTIVE WADING-BIRD WHICH HAS STARTED TO BREED AGAIN IN ENGLAND: THE AVOCET.



AN AVOCET TURNING ITS EGGS IN ITS SANDY NEST. THE INCUBATION PERIOD IS APPROXIMATELY 22 DAYS.



(UPPER,) AN AVOCET IN FLIGHT; AND (LOWER) AN AVOCET, A BEAUTIFUL WADING-BIRD, ON ITS NEST.

BACK AFTER OVER A CENTURY'S ABSENCE: THE AVOCET, ONE OF THE MOST GRACEFUL OF BIRDS.



NEWLY-HATCHED: AN AVOCET CHICK SEEN WITH THE NOW EMPTY SHELL AND ANOTHER, UNHATCHED, EGG.



ONE OF THE BEAUTIFUL BIRDS THAT HAVE NOW RETURNED TO BREEDING-GROUNDS IN EAST ANGLIA AFTER MORE THAN 100 YEARS: AN AVOCET APPROACHING ITS NEST. THE GRACE AND DISTINCTIVE PLUMAGE OF THIS LONG-LEGGED WADER CAN BE CLEARLY SEEN.



USED TO PHOTOGRAPH AVOCETS NESTING ON A SANDY SITE IN HOLLAND: A TEMPORARY HIDE. OBSERVATION HIDES ARE TO BE ERECTED ON HAVERGATE ISLAND.

The return of the avocet as a breeding species seems fairly well established now that these attractive wading-birds have reappeared in East Anglia in increasing numbers since 1946, after more than a century's absence. Since 1947 the birds have been once again successfully rearing their young in this country. As it has been obviously imperative that these birds should not be disturbed in any way, no photography has yet been attempted in East Anglia, but the photographs which appear on this page have been taken by Mr. Ian M. Thomson in Holland. It has been suggested that the disturbance of the large colony near the Hook by battle emplacements built



SURROUNDED BY A MAZE OF EMPTY SHELLS: AN AVOCET'S NEST. IN 1949, FOR THE FOURTH YEAR RUNNING, AVOCETS RETURNED TO BREEDING-GROUNDS IN EAST ANGLIA.

by the Germans may have been instrumental in bringing about the very welcome return of this lovely wader. Great credit is due to the Royal Society for the Protection of Birds, which has done so much to encourage and protect the avocets during the early stages of this colonisation and to the voluntary workers who have put so much time at the disposal of the R.S.P.B. Attacks by rats, and an exceptionally high tide which flooded the breeding-grounds in 1949, were overcome, and now steps are being taken to make it possible to control the salinity and the depth of the water at Havergate Island.



"PORTRAIT OF A POPULAR INVALID": LIEN-HO, THE ZOO'S GIANT PANDA, SITTING UP AND TAKING NOURISHMENT.

The news of the illness, soon after Christmas, of the Zoo's Giant Panda, *Lien-Ho*, cast quite a gloom over the New Year. Since her arrival in this country in 1946, as a gift from the Chinese Government, *Lien-Ho* has won the hearts of all animal-lovers and especially of all children, to whom her striking colouring and cosy build make an instant appeal. Her illness—caused, it is believed, by some lack in the bamboo shoots which form the staple of her diet—aroused great anxiety. She was given injections of Vitamin "B" concentrate and an appeal for fresh bamboo shoots, especially those grown under greenhouse conditions, was broadcast and met with a

response from all parts of the country. She made steady progress after the New Year and on January 5 stood for the first time since her illness, later feeding much better, on bamboo shoots, porridge oats and milk, and, it was reported, sweet corn. On January 8 she was reported to have "turned the corner to recovery"; but had what is described as "a slight relapse" on January 12, and was being kept in the Sanatorium. Mr. G. S. Cansdale, the Zoo Superintendent, however, said: "The Panda is feeding well, but we are not happy about her condition." Every care is being taken of her; and all our readers will join in wishing her well.

A WOMAN WHOSE FIRST DUTY IS OBEDIENCE:



EXPECTED TO UNDERSTAND WESTERN AS WELL AS EASTERN *CUISINE*: A MODERN JAPANESE WIFE, WHO MUST BE EXPERT IN THE KITCHEN.



THE PERFECT JAPANESE WIFE MUST ALSO BE AN EXCELLENT MOTHER: THIS YOUNG WOMAN IS SEEN WITH HER LITTLE DAUGHTER IN THE GARDEN.



FLORAL DECORATION IS A STYLISED ART IN JAPAN: THE YOUNG WIFE IS EXPECTED TO ARRANGE FLOWERS IN ACCORDANCE WITH THE TRADITIONAL PRINCIPLES.



WELCOMED BY A HOSTESS IN JAPANESE COSTUME, WHOSE MANNER IS A BLEND OF HUMILITY AND GRACE: GUESTS IN A JAPANESE HOME, FURNISHED IN WESTERN STYLE.



MUSIC AT THE CLOSE OF DAY: THE EVER-ACCOMPLISHED HOSTESS ENTERTAINS THE FAMILY ON HER "KOTO," A HORIZONTAL THIRTEEN-STRINGED HARP.

During the last ten years the British housewife has had to graduate in a hard school, and has passed with honours; yet in comparison with the discipline, to which Japanese women have to submit and the perfection they are expected to attain, wives in our Welfare State have an easy life. In Nippon, one of the oldest rules for woman is three-fold obedience, to her parents when young, to her husband when married, and to her sons when old, and this has always been accepted as a natural law. Before the promulgation of the new Constitution, life for the average Japanese

woman was closely circumscribed. Marriage was her career, and when she came into the house of her future husband, one of the traditional ceremonies in which she participated was to kneel at the family shrine and report, so to speak, to the souls of his ancestors, that she had joined the family group for better or for worse. Thus she became an integral part of the household—this being more important than her

THE JAPANESE WIFE, DOCILE AND EFFICIENT.



AT WORK IN THE CHARMINGLY-LAID-OUT GARDEN: THE JAPANESE HOUSEWIFE MUST SPEND A CERTAIN AMOUNT OF TIME KEEPING THE GROUNDS IN ORDER.



THE EVENING MEAL IN NATIONAL STYLE: THE FAMILY ARE GATHERED ROUND A LOW TABLE, KNEELING ON CUSHIONS IN ACCORDANCE WITH CUSTOM.



MOTHER AND DAUGHTER: SEATED ON THE SUNNY "ENGAWA," OR CORRIDOR, THE FORMER IS BUSY WITH FINE NEEDLEWORK, WHILE HER LITTLE GIRL PLAYS WITH A DOLL.

position as the wife of an individual member of the family. In post-war Japan, however, certain changes have taken place in the family system. One of the most important is that the perfect bride of to-day must have greater intellectual attainments than her mother. She must boast a girls' High School standard of education, yet she must have been brought up in the strict traditions of a well-to-do



DUTIFULLY MASSAGING THE SHOULDERS OF HER FATHER-IN-LAW AS HE READS: A JAPANESE WIFE MUST ALWAYS LOOK AFTER HER MEN-FOLK.



KNEELING AS SHE HANDS HER HUSBAND HIS HAT AND BRIEF-CASE: THE MORNING CEREMONY OF FAREWELL BEFORE THE MASTER OF THE HOUSE LEAVES HOME FOR HIS OFFICE.

Japanese family. She must be expert in the kitchen, delicate and dainty, but able to drive a hard bargain. The ideal wife should be able to read and write; her calligraphy must be elegant, and she should be able to embellish letters with poetic effusions. She must be able to talk in company—unlike her mother, who was prohibited from speaking in the presence of men unless addressed—use the telephone, keep the books, and run the house. If in addition she has a pretty face and figure, she may attain the ideal for a Japanese wife.

WHERE THE CANAANITE GODDESS OF LOVE AND FERTILITY WAS WORSHIPPED:

A NEWLY-FOUND TEMPLE OF ASTARTE IN NORTH PALESTINE.

By I. BEN-DOR (of the Israeli Department of Antiquities, Jerusalem).

(Photographs Reproduced by Courtesy of the Director, Department of Antiquities, Government of Israel.)

PALESTINE is notoriously rich in ancient mounds or *tells*, large and small, distributed all over the country. One such *tell* lies on the outskirts of the Jewish agricultural settlement and summer resort Nahariya, about 6½ miles north of Acre (Fig. 2). It is a low mound, measuring about 44 yards across, rising out of the sand dunes at a distance of about a furlong from the Mediterranean.

A macadamised road built in 1942 along the sea-coast cut off a slice of the western slope of the mound (Fig. 1) and revealed layers of black earth intermingled with fragments of pottery. Here were evidently the remains of an ancient settlement. Since the site was within an area of prospective building operations, it seemed imperative to investigate it, and the Department of Antiquities decided to undertake the excavation of the mound. The work was carried out with the active co-operation of the owner of the plot and of the Local Council of Nahariya, and lasted from April 13 to May 20, 1947.

The remains of a building, 22 yards long and 8½ yards wide, were unearthed. The building consists of a large main room (I. on plan, Fig. 3), a smaller room at either end (I.A and II.), and two small *cubicula* (III. and IV.) to the north of Room II. Two doors, a broader at the south and a narrower at the north, gave access to the main room from the outside. A third door may have opened from Room I.A towards the sea, but the wall at this spot was too far destroyed to warrant any definite conclusion. Room II. contained the remains of a circular silo built of upright stone slabs and probably used for storing grain or other food.

The building is constructed entirely of stone, and its walls are at places preserved to a height of 6½ ft. (Fig. 12).



FIG. 2. A MAP OF THE NORTH PALESTINE COAST, SHOWING THE LOCATION OF NAHARIYA AND EZ-ZIB (THE ANCIENT AKHZIB), THE NEAREST MIDDLE BRONZE AGE SITE.

They are built of large, undressed sandstone blocks, only partly worked, but laid with great skill so as to form quite a solid structure. Black mud, probably from nearby marshes, was occasionally used as mortar and as plaster.

The walls of the main room show two phases of construction: the earlier and lower walls are nearly 2½ ft. thick, but above them a series of later walls has been built, measuring up to 3½ ft. in width, which show a more solid construction. The two phases are clearly distinguishable from each other by a horizontal projecting ledge which marks the thickened wall of the higher and later phase. The sequence of the building phases is furthermore clearly visible in the structure of the door, which has been enlarged during the second phase and provided with a threshold. The other rooms (I.A, II., III. and IV.) belong to a still later phase, as may be inferred from the foundations of their walls, which are on a much higher level than the foundations of the main room. This circumstance is, of course, due to the fact that the additional rooms were built at a time when a considerable amount of debris had already accumulated outside the main room.

Of particular significance is Room I.A, at the west, the walls of which are of much inferior workmanship to the walls of the main room. They are built upon a 6-ft. accumulation of clay, black earth, animal bones, ashes and innumerable pottery fragments, which stretch in uninterrupted layers below the entire area of the room. In particular evidence among the pottery fragments found were parts of cylindrical stands, the walls of which are pierced with rectangular or circular openings. The stands were open above and below and had large handles for carrying. Applied plastic bands of clay, decorated with

incised criss-cross lines, run round the body above and below the handles (Fig. 8). Stands of similar form, and with identical openings, are known to have been used as incense-burners in temples or shrines of the Canaanite and early Israelite periods.

The presence of a large number of fragments of such incense-burners in the debris below Room I.A provided the first indication that the building represented a temple, and that the incense-burners had been thrown out after use. Some of the pieces still had lumps of ashes and fragments of animal bones adhering to them.

Further evidence for the sacred character of the building is provided by a remarkable series of over 100 miniature pottery vases, ½ in. to 2 in. high (Fig. 9), which, judging by their size, could have served no practical purpose, but must have been brought as symbolic offerings to the deity.



FIG. 1. THE NAHARIYA TELL, IN WHICH THE CUTTING OF THE ROAD SHOWN REVEALED THE EXISTENCE OF THE TEMPLE OF ASTARTE, DESCRIBED IN THE ARTICLE ON THIS PAGE.

These model offering-vases are of several types: tall cups with flaring mouth and flat base, pointed at the bottom, miniature cups, comparable in form and in size to a thimble. A few model pots had handles, others had a hole in the base. The model juglet shown in Fig. 9e is noteworthy for its graceful shape; it is an exact replica of a juglet of normal size also found in the temple (Fig. 9d.). Some of the model pots are hand-made, others are shaped on the potter's wheel. Most of them show traces of having been attached to some other vessel, perhaps to incense-burners or to other cult objects.

In the accumulation of refuse below Room I.A and inside the main room, a number of clay figurines were found, representing doves with outstretched or folded wings (Fig. 11). The doves have no legs; but a hole in the underside shows that they were intended for attachment by means of a peg to the rim of an offering-stand or to some similar object. Somewhat similar doves perched on the openings of offering-stands have been found in a Canaanite temple of later period at Beth-Shan, in Palestine.

Since time immemorial the dove was sacred to Astarte, the Canaanite goddess of love and fertility, probably on account of the proverbial attachment and tenderness of doves to each other and the regularity of their egg-laying and hatching of chicks. Having been domesticated at

tablets discovered at Ras Shamra, farther north on the Phœnician coast. An actual representation of the goddess was found, below the lowest floor of the temple, in the form of a miniature figurine of silver, showing the goddess in full-length, standing with closed legs and with her arms folded on her breast (Fig. 10). This is notable as the first silver figurine to be found in Palestine.

Fragments of a hunchback figurine in clay and of an unidentified animal (?) were also found in the debris of Room I.A, and their significance is not clear (Fig. 6).

The accumulation of debris showed that the main room had been long in use and the superimposed levels enabled this occupation to be studied in detail. The floors, seven in number, were distinguished by layers of ashes, patches of beaten mud, potsherds scattered in horizontal strata, and even by bowls found in an upright position with, occasionally, the remains of food near by. Each of the occupation levels yielded fragments of pottery. On the lowest floor of all, near one of the walls, was found a complete bronze axe in a good state of preservation (Fig. 13). Below the floor were some scattered beads of banded agate, carnelian and rock crystal. Some of these were embedded in hard, sandy rock and had to be chiselled out.

Several large stones found in various levels within Room I. appeared to have been laid in a horizontal position along the main axis of the room. They evidently served at various periods as bases for wooden posts supporting the roof (Figs. 12 and 14).

The period to which the temple belongs could be definitely established from a study of the numerous pottery fragments found in and outside the temple and in the refuse heap. The pottery appears to belong mainly to the latter part of the Middle Bronze Age or to the period of the Hyksos domination in Palestine (eighteenth and seventeenth centuries B.C.).

Characteristic "Hyksos" pottery was represented by small pear-shaped juglets of red or of dark-grey clay, polished and inlaid with white dots of paste arranged in lines or in triangles. Other characteristic types of the period included rims of water jars

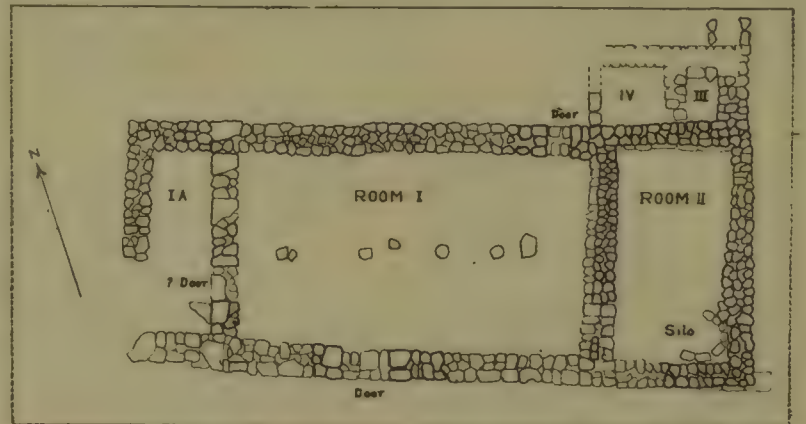


FIG. 3. A GROUND PLAN OF THE NAHARIYA TEMPLE OF ASTARTE, SHOWING THE LAYOUT OF THE VARIOUS ROOMS AND THE POSITION OF THE SILO AND THE DOORS.

with elaborate moulding on the outside, bowls of fine clay covered with a dark-red slip and provided with a base in the form of a flat disc, cooking-pots of dark clay, with grits to prevent cracking under heat, and small juglets with a pointed base, for which a clay ring was required to stand them upright (Fig. 7).

No traces of other buildings were found on the *tell*, which thus did not belong to a settlement. It may therefore be assumed that the temple was frequented by worshippers from the neighbourhood, the nearest Middle Bronze Age site being Ez-Zib, the ancient Akhziv, some 2½ miles to the north. Another possibility is that the temple served the needs of nomadic tribes which may have roamed in the vicinity.

Why the temple was erected on just this spot was only discovered a few days after the excavation had been completed. An inquiry into the water resources revealed that a spring of sweet water gushed forth in the sea just opposite the mound, about 6½ ft. from the shore, and below the present water-level (Figs. 4 and 5). Although such phenomena are not unknown in Palestine and fresh water is found at a few other places along the seashore, it is quite possible that the occurrence of a spring beneath the sea was considered something of a miracle by the people living in the neighbourhood in ancient times; and they may well have dedicated the temple to the deity who dwelt in the spring or caused it to emerge just where it did.

Geological investigation, it is true, might indicate that the coast has receded in historical times and that the spring was clear out of water during the Middle Bronze Age; but even so, we should still have reason enough to connect the building with the source. The question of water supply has always been very important in Palestine, and it was surely the presence of the spring, whether in the sea or out of it, that suggested to the ancient builders to select the nearest natural hillock as a suitable site for their temple, and to dedicate it, may we add, to *Ashirath yam*, "Astarte of the Sea."



FIG. 4. DRINKING FROM THE FRESH-WATER SPRING WHICH BUBBLES UP THROUGH THE SURF AT NAHARIYA AND WHICH MAY HAVE BEEN THE REASON FOR THE SITING OF THE TEMPLE IN THE NEIGHBOURHOOD.

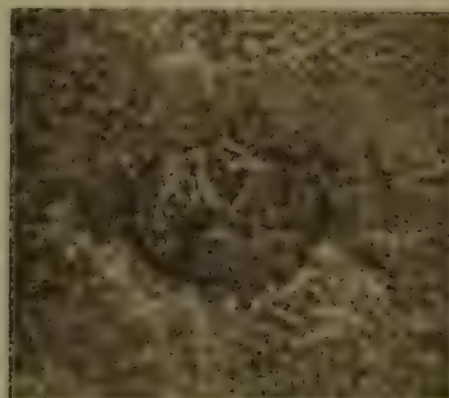


FIG. 5. HOW THE NAHARIYA FRESH-WATER SPRING BUBBLES UP THROUGH THE FRINGE OF THE SEA (SEE FIG. 4). THE FRESH WATER CAN BE SEEN AS AN OVAL PATCH IN THE CENTRE.

a very early stage, their habits would long have been known to the ancients. The symbolic connection of the dove with the goddess of love passed from the Orient to Greece, where the dove became the sacred bird of Aphrodite.

The fact that no fewer than nine dove figurines have been found in or near the building may indicate that the temple was dedicated to the cult of Astarte or Asherah, her counterpart in the Phœnician domain. The name of the goddess Asherah, or Athira, is mentioned in the cuneiform

"ASTARTE, QUEEN OF HEAV'N": A NEW-FOUND TEMPLE AND A UNIQUE STATUETTE.



FIG. 6. FIGURES FROM THE TEMPLE: (ABOVE) AN ANIMAL; (BELOW) A HUNCH-BACK.

FIG. 7. POTTERY FRAGMENTS, FROM NAHARIYA, DATING FROM THE HYKSOS DOMINATION OF PALESTINE (18TH-17TH CENTURIES, B.C.). NOTE THE INLAID DOTS.

FIG. 8. FRAGMENTS OF POTTERY INCENSE-BURNERS FROM THE ASTARTE TEMPLE. ON THE LOWER-LEFT SHARD ADHERING CHARCOAL FRAGMENTS CAN BE SEEN.

FIG. 9. (A, B, C, E) TYPICAL OF THE MANY MINIATURE POTTERY VESSELS USED AS VOTIVE OFFERINGS AND FOUND AT NAHARIYA; (D) A 3½-IN.-HIGH JUG ALSO FOUND, OF WHICH (E) IS A MINIATURE VOTIVE REPLICA.



FIG. 10. "ASTARTE, QUEEN OF HEAV'N": THE FIRST SILVER FIGURE TO BE FOUND IN PALESTINE. SILVER, ABOUT 2 INS. HIGH.

FIG. 11. THE DOVES OF ASTARTE: TWO OF THE NINE CLAY VOTIVE FIGURES OF DOVES FOUND IN THE NAHARIYA DIGGINGS. THE LOWER IS ABOUT 2½ INS. WIDE.



FIG. 12. CLOSE BY THE BATHING-TENTS OF A MODERN PALESTINIAN SEASIDE RESORT: THE NEWLY-EXCAVATED TEMPLE OF THE CANAANITE GODDESS OF LOVE, LOOKING W.-N.-W. TOWARDS THE SEA.



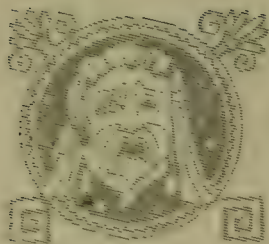
FIG. 13. DATING FROM THE MIDDLE BRONZE AGE, A WELL-PRESERVED BRONZE AXE-HEAD FOUND IN THE LOWEST LEVEL OF THE TEMPLE (ROOM I.). CENTIMETRE SCALE TO LEFT.



FIG. 14. A VIEW OF THE EXCAVATED TEMPLE, SHOWING THE STONE BASES ON THE CENTRAL AXIS OF ROOM I. THESE BASES ORIGINALLY CARRIED ROOF-SUPPORTING PILLARS.

In his article on the facing page, Mr. I. Ben-Dor, discussing post-war excavations at Nahariya, writes: "The fact that no fewer than nine dove figurines have been found in or near the building may indicate that the temple was dedicated to the cult of Astarte"; and later, after describing the spring of fresh water which bubbles up through the surf near by: "... it was surely the presence of the spring... that suggested to the ancient builders to select the nearest natural hillock as a suitable site for their temple and to dedicate it, may we add, to *Ashirath yam*, 'Astarte of the Sea.'" Astarte was the Semitic goddess who appears so frequently in the Bible as Ashtoreth (or, in the First Book of Samuel, as "Ashtaroth"). She is the goddess of love, fertility, reproduction, the great nature-goddess. She is especially

the goddess of the Sidonian coast, on which Nahariya stands, and was frequently worshipped by the erring Israelites. Solomon built her a temple, which survived to the days of King Josiah (in II. Kings, xxiii., there is a reference to "the mount of corruption which Solomon the king had builded to Ashtoreth, the abomination of the Zidonians") and the writings of the Prophets contain many references to her and to the Israelites' frequent backslidings to her worship. As mother-goddess, goddess of love and of the hunt, she later became associated and confused with Hera-Juno, Aphrodite-Venus and Artemis-Diana; and so although her original consort was the Baal of the Canaanites, later worship associated her with the Adonis-cult, which was also native of the Syrian coast. (Photographs reproduced by Courtesy of the Director, Department of Antiquities, State of Israel.)



The World of the Cinema.

OLD COMEDY AND NEW.

By ALAN DENT.

WHEN I mentioned the name of Max Linder to some of my younger colleagues the other day they smiled silently, with the smile of non-comprehension. Yet he was a favourite film-star of my furtive infancy *circa* 1913 or 1914, and I have never even begun to forget his debonairiness, his elegant French moustachio'd smile, his incurable habits of becoming tipsy and getting into intricate and laughable scrapes in consequence. He was the forerunner of the great Chaplin himself, and Chaplin has indeed publicly acknowledged his obligations to the Frenchman's methods, business, and style. (He died, by the way, in 1925 at the early age of forty-one.)

It was therefore with a keen nostalgic pleasure that I accepted the invitation the other evening from the New London Film Society to see a capitally-arranged special programme consisting of four one-reel Max Linder comedies followed by one of Chaplin's first full-length films, "The Circus" (1925-27), which I had never seen before. I had no expectation of finding more than a handful of specialists at this session. Instead, and to my surprise, not unmixed with gratification, I found a big, laughing audience in which quite young people predominated. And they laughed at the films because they were comical, and not because they were ridiculously old-fashioned. Quite rightly, they were exhibited to the accompaniment of a single deft pianist sitting in the dark.

What happened to me personally was that thirty-five years or so slipped easily away from me, and I felt again that I was a rather naughty little boy who had hoarded the few pennies necessary and had slipped away from my homework (and without parental permission) to my native town's sole picture-house. And there, to my heart's delight—the joy all the keener because it was not sanctioned—I would sit on a quite hard bench and see, say, a Max Linder comedy, and then an instalment of an exciting serial—maybe Pearl White in "The Perils of Pauline" or Eddie Polo in "The Broken Coin." And finally there would be a four-reeler containing William S. Hart, or a rugged actor called Robert Warwick, or a slim and wistful one called Charles Ray, or a pleasing English brunette called Violet Hopson, or a deeply dramatic American lady called Norma Talmadge. And if the town's curfew-bell struck before the big film was ended, I had to leave the end unseen, hatefully, because I had to be indoors by ten at the latest.

Perhaps I should apologise to the reader for this personal dithyramb. But the sight of Max Linder acted instantaneously on my memory as the taste of the madeleine biscuit acted on Marcel Proust's. And let it be understood that I apologise for myself and not for Max Linder, since he remains an enchanting comedian who should not have been forgotten by anybody. Each of the tiny films in this particular programme had a richly comic idea as its basis. And it was extraordinarily interesting to compare his methods with Chaplin's in the same programme. When, for example, Linder, as a smart man-about-town, calls at his sweetheart's house and impulsively kisses his own portrait when he sees it on the piano, he becomes as suddenly like Charlie as Charlie is like himself in "The Circus," when he swiftly raises his hat to the hen

that has obligingly laid him an egg for his breakfast. "The Circus" is too clumsily and haltingly constructed to make it one of the major films in the Chaplin catalogue. But it is a ridiculous

state of things that one should have to join a film-society in order to see it at all. It has at least a dozen heavenly moments, and my own favourite is when Charlie finds himself in a cage with a sleeping lion. The noble beast awakes, gazes upon the little man, yawns, and falls asleep again, and Charlie turns in one second from staring panic to the most preposterous and haughty nonchalance imaginable.

The credits to "The Circus" run "direction and scenario by Charles Chaplin." The credits to the only new film-comedy we have had recently, "The Cure for Love," run "screen-play by Robert Donat; produced and directed by Robert Donat." And there all comparison shall summarily and peremptorily cease. The truth is that this charming actor has a stubborn bee in his agreeable bonnet about "The Cure for Love." It is not and never was a good play, because it does not truly typify Lancashire. And it has not been made—and possibly could not be made—into a good film, for the same reason and some others.

In the last few months of his life my old chief and mentor, James Agate, saw this play in London and wrote this notice: "This is a boisterous, over-long charade about a Desert Rat who, being Lancashire, is deemed to be 'gormless.' He would fall into the arms of a Circe from Wandsworth but is prevented by the Salford Delfiah to whom he is engaged. Entertaining? Yes, when it is not dull and repetitive. Everybody says everything at least six times over, and a good twenty minutes should be cut out of each act, when the whole would make good entertainment for town as well as country bumpkins. Mr. Donat and his company slog through it all in capital style."

Clearly I recall chiding James for the severity of this, thinking that the great critic was allowing illness and exhaustion to be affecting his judgment at long last. He said simply: "You go and see it for yourself." And my goodness, was he right! The only discernible disparity between the play and the film is that Circe now seems to hail from Tooting instead of Wandsworth, and that the repetitiveness of the dialogue is, if anything, even more marked. In one scene, if the hero declared that he was going to have a bath once, he declared it at least eight times. And "slog" continues to be the agatian *mot juste* for the acting in general. One excepts the occasional moments when Mr. Donat is able, as it were, to interpose some of his own charm between the tiresome hero and ourselves; and one also excepts the whole performance of that 'sterling' actress, Marjorie Rhodes, as the hero's unsentimental mother. This study comes far closer than anything else in the film to the Lancashire one knows.

Mr. Donat's own performance is not even convincing in the matter of dialect. His Jack Hardacre sounds his aitches not only in words like "home," but also in words like "why" and "where." Yet there is, quite rightly, not an aitch to be heard in the speech of all the other Lancashire characters, their class—like Hardacre's own—being weavers' class.

Our attention has been drawn to the fact that a photograph entitled "Prisoners' 'brain-waves' as murder evidence" which appeared on page 910 in our issue dated December 10 was not taken, as we stated, at Maudsley Hospital, Camberwell, London, but showed a "brain-wave" machine being demonstrated at the Marconi Works.



THE FILM VERSION OF A PLAY WHICH WAS NEVER GOOD "BECAUSE IT DOES NOT TRULY TYPIFY LANCASHIRE": "THE CURE FOR LOVE," SHOWING MRS. JENKINS (GLADYS HENSON) WITH CLAUDE (FRANCIS WIGNALL) WATCHING JANEY JENKINS (DORA BRYAN) DESTROYING THE PHOTOGRAPHS OF HER WARTIME BOY FRIENDS. JANEY HAS JUST HEARD THAT HER FIANCE, JACK HARDACRE (ROBERT DONAT), IS DUE HOME ON LEAVE.



"I'LL PLAY YOU, SERGEANT": SAM (JOHN STRATTON; RIGHT) CHALLENGES JACK HARDACRE (ROBERT DONAT) TO A GAME OF DARTS. MILLY (RENEE ASHERSON) SENSES TROUBLE AFOOT—A SCENE FROM "THE CURE FOR LOVE."

This week, after some nostalgic recollections of films of some thirty-five years ago, Mr. Dent discusses "the only new film-comedy we have had recently"; this is "The Cure for Love," which is produced and directed by Robert Donat, who takes the part of Jack Hardacre, the hero of the story. Mr. Dent thinks that "the repetitiveness of the dialogue is, if anything, even more marked" than it was in the play. "In one scene, if the hero declared that he was going to have a bath once, he declared it at least eight times."

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PERSONALITIES AND EVENTS OF THE WEEK: PEOPLE IN THE PUBLIC EYE.



SPEAKING AT THE COURT OF SYNOD DURING THE LAST SESSION OF THE PRESENT CONVOCATION OF CANTERBURY: THE ARCHBISHOP OF CANTERBURY, DR. FISHER, WHO SPOKE OF THE FORTHCOMING ELECTION.

The Convocation of Canterbury opened its session on January 12 at the Church House, Westminster. This Convocation will be dissolved with the dissolution of Parliament. In his address to the full Synod, the Archbishop of Canterbury, Dr. Fisher, made an appeal for "fair-mindedness and courtesy" in the General Election, and he spoke of his regret that the authorities had overlooked, or disregarded, the fact that the eve of the poll will fall on Ash Wednesday. Dr. Fisher also spoke of the position reached in the revision of Canon Law.



A DRAMATIC MOMENT AT LAKE SUCCESS: MR. MALIK, THE RUSSIAN DELEGATE, WALKING OUT OF A SECURITY COUNCIL MEETING AFTER HIS REQUEST FOR THE EXCLUSION OF THE CHINESE DELEGATE HAD BEEN REJECTED.

The Russian delegation, led by Mr. Malik, walked out of the United Nations Security Council on January 10, after the rejection of Mr. Malik's demand for an immediate vote on the exclusion of Dr. Tsiang, leader of the Chinese Nationalist Delegation—who, by an ironical coincidence, is President of the Council this month. Mr. Malik returned to the Security Council on January 12 for the debate on his motion to exclude Nationalist China. On January 13, when the Soviet demand for Dr. Tsiang's expulsion was rejected, Mr. Malik again walked out.



THE YAWL IN WHICH A FOURTEEN-YEAR-OLD BOY MADE A 200-MILE VOYAGE ALONE: GIRL JEAN.

On January 11, at Arbroath, Angus, the skipper of a 50-ton fishing boat, *Girl Jean*, found that the vessel was missing. It was later discovered that a fourteen-year-old boy, John Guthrie, had gone to sea in her alone. For three days shipping looked out for the missing boat, and R.A.F. aircraft joined in the search. The *Girl Jean* was found by the *Reptonian* on January 13.



THE FORMER AMBASSADOR OF CHINA IN LONDON: DR. CHENG TIEN-HSI WITH HIS WIFE, SONS AND DAUGHTER.

On January 5, eve of the recognition by the British Government of the Central People's Government in Peking as the *de jure* Government of China, Mr. Hector McNeil informed Dr. Cheng, Chinese Ambassador in this country for three-and-a-half years, of the decision; and added that he and his staff would be welcome in this country as private residents. Dr. Cheng is a distinguished lawyer.



JOHN GUTHRIE.

The boy who went to sea in the yawl *Girl Jean* (left). On January 13 the Hull trawler *Reptonian* sighted the *Girl Jean* drifting, with her propeller fouled by ropes, some 200 miles east of Aberdeen. When the boy was found he was exhausted and seasick, and had not eaten for two days.



MR. ALAN CLUTTON-BROCK.

Art critic of *The Times*, who is holding his first one-man show at the Marlborough Gallery. He is a trustee of the National Gallery and is Chairman of the International Association of Art Critics; in addition to short introductions to Italian and French painting, he has published a life of William Blake.



TAKING OVER COMMAND OF THE HOME FLEET: ADMIRAL SIR PHILIP VIAN, THE NEW C.-IN-C. (RIGHT).

On January 12 Admiral Sir Philip Vian became Commander-in-Chief, Home Fleet. Our photograph shows the scene on board H.M.S. *Implacable* at Portsmouth when Admiral Sir Philip Vian took over command from Admiral Sir Rhoderick McGrigor (left). Admiral Vian, who is fifty-five, when in command of *Cossack*, rescued 300 British seamen from the Nazi prison-ship *Allmark* in February, 1940.



THE INAUGURATION OF A NEW RÉGIME: BAO DAI SIGNING THE CONVENTIONS, WITH M. PIGNON, IN THE CITY HALL, SAIGON.

On December 30, the Emperor Bao Dai and M. Pignon, the French High Commissioner in Indo-China, signed the conventions implementing the terms of the Franco-Viet Nam agreement of last March. Since then, Bao Dai has informed his Cabinet that he has decided to confine himself exclusively to the duties of head of the State. On page 92 of this issue Professor Cyril Falls discusses "France in Indo-China."



GENERAL HENRY H. ARNOLD.

Died in California on January 15, aged sixty-three. He was Chief of the United States Army Air Forces from 1942 to 1946, and was formerly Chief of the Air Corps and Deputy Chief of Staff. A pioneer aviator, he received his first lessons from the Wright brothers. He was a man of enterprise and vision, and under his command the U.S. Army Air Forces became one of the most formidable air fleets in the world. Photograph by Karsh of Ottawa.



AT THE OLD GAITY LUNCH: MR. W. MACQUEEN POPE, GERTRUDE COUNTESS OF DUDLEY (GERTIE MILLAR) AND SIR GERALD KELLY, P.R.A. (RIGHT). Stars of the old Gaiety Theatre assembled at the lunch given by Foyle's in honour of Mr. W. MacQueen Pope, author of "Gaiety Theatre of Enchantment." Gertie Millar (Gertrude Countess of Dudley) is seen between the guest of honour and the chairman, Sir Gerald Kelly, P.R.A., examining a brick from the famous theatre. Rosie Boote (Rose, Marchioness of Headfort) and Lily Elsie were also present.



IN writing recently about the use of inlay in several kinds of furniture made at various periods between the sixteenth century and the end of the eighteenth



FIG. 1. A SMALL LATE SEVENTEENTH-CENTURY BRACKET CLOCK IN AN EBONISED OAK CASE: BY JOSEPH KNIBB. Joseph Knibb was the elder of two Oxfordshire brothers, both clock-makers. The small clock, only 12 ins. in height, which we reproduce, is in an ebonised oak case, with chiselled mounts and pineapple finials. Courtesy of Messrs. Sotheby.

century, I drew attention to this agreeable and by no means easy technique as a favourite device from about 1660 until the reign of Queen Anne for the decorations of grandfather clocks. A typical and very good example came up at Christie's early in December: the body of the case in walnut, and the inlay consisting of three panels of flowering plants and foliage carried out in various woods. Your real clock expert, of course, looks at other things—many others—apart from the case, and talks learnedly of such erudite matters as crown escapements, verges, strike regulator levers, and so forth, all of which are fascinating, and most are beyond my comprehension. To enjoy clocks as they deserve to be enjoyed one needs a thorough grounding in the niceties of horological science and a genuine understanding of its development. Happy the man who can look inside and tell at a glance just where and when alterations have been made to the works! He will lead a completely happy life and will also be able to look down his nose at you and me. However, it is possible to appreciate good cooking without being a good cook oneself, and if what follows deals more with externals than with mechanics it is merely because I know my limitations. The end of the seventeenth century was a great age for clockmakers. It was a period of scientific adventure, to which not only the Transactions of the Royal Society, but the diaries of distinguished dilettanti like John Evelyn and Samuel Pepys, and of inventors like Dr. Robert Hooke, bear eloquent witness. For example, Evelyn in 1661 speaks of a visit to Fromanteel's house to see that remarkable invention the pendulum clock, and Robert Hooke writes in his testy way of his dealings with the great Thomas Tompion. "Mr Tompion here from 10 till 10. He brought clockworks to shew." "Told him my way of springs by a hammer and anvil, like making pins, which he approved of." "Tompion here instructed him about the King's striking clock, about bells and about the striking by the help of a

A PAGE FOR COLLECTORS. CLOCKS AND THEIR MAKERS.

By FRANK DAVIS.

spring instead of a pendulum." "At Tompion's, scolded with him." "I fell out with him for slowness." "Tompion a Slug." "Tompion. A clownish churlish Dog. I have limited him to three day and will never come near him more." And much more of the same sort, most vivid and engaging. The marquetry long-case clock I mentioned earlier is by Joseph Knibb, the elder of two Oxfordshire brothers. The younger one, John, made clocks at Oxford and became Mayor of the city in 1700. The elder migrated to London in 1670 and there built up a fine business. A little before the end of the century, he seems to have gone into semi-retirement at Hanslope, in Buckinghamshire, but he still carried on his craft (there are clocks signed "Joseph Knibb at Hanslop") until his death in 1712. Fig. 1 is a bracket clock by him (quite small, only 12 ins. in height), in an ebonised oak case, with chiselled mounts and pineapple finials, the gilt-metal dial with a silvered hour ring. Fig. 3 is from a similar, but larger, bracket clock—16 ins. high—by Tompion and Banger, and shows very well the extreme nicety and beauty of the detail—for example, the flowing curves of the hour hand, the elegant numerals, and the pattern of the decoration in the spandrels—small items which add up into a most satisfying sum. There is plenty of interest in the study of such minor things as those, before seeking to probe the ingenious mysteries which lie behind clock-faces. That later men of no special reputation could make fine bracket clocks is proved well enough by Fig. 2, by Markwick Markham, who, it will be noted, required no urging by H.M. Government to cater for the export trade, for the hours are indicated by Turkish numerals. Such examples—most of them richly decorated—were much in favour in the Near East. In this one, the domed hood is veneered with tortoiseshell and inset and overlaid with ormolu plaques pierced and chased with vases of flowers and scrolling foliage. There are fluted columns to the splayed angles and each corner is crowned by a vase finial. It will be seen that two of the photographs are of square clock-faces—this was the usual practice for both long-case and table-clocks till the eighteenth

life the day-by-day collaboration of an irascible and brilliant inventor and a man of exceptional practical ability. I would give a lot for Tompion's diary, but such men rarely put pen to paper. He was born at Northill, in Bedfordshire, in 1639, where his father was a blacksmith. He was admitted to the Clock-makers' Company in 1671, was a Master in 1703, and was known far beyond the bounds of these islands. His two nieces married clockmakers, one George Graham, the other Edward Banger, and both these



FIG. 2. WITH TURKISH NUMERALS ON A SILVERED DIAL: A TORTOISESHELL BRACKET CLOCK, MADE FOR EXPORT BY MARKWICK MARKHAM. This bracket clock, the domed hood veneered with tortoiseshell and inset and overlaid with ormolu plaques, is 13 ins. high, and dates from the first half of the eighteenth century. Such examples—most of them richly decorated—were much in favour with the East. Courtesy of Messrs. Christie, Manson and Woods.



FIG. 3. "SHOWING . . . THE EXTREME NICETY AND BEAUTY OF THE DETAIL": THE DIAL OF A 16-IN. BRACKET CLOCK, c. 1700, BY THOMAS TOMPION AND EDWARD BANGER. Frank Davis writes of the dial of this clock, "the flowing curves of the hour hand, the elegant numerals and the pattern of the decoration in the spandrels . . . add up into a most satisfying sum." [Courtesy of Messrs. Sotheby.]

century, when the square face began to be surmounted by a semi-circular upper part, as in Fig. 2. The fact that Dr. Hooke, as the diary quotations above show, was often at loggerheads with Thomas Tompion (once he really let himself go: "Tompion a rascal!" *tout court*) must not be allowed to imply that the latter was a person of no distinction: rather they bring to

two were associated with Tompion's work. A single stone in the nave of Westminster Abbey marks the grave of both Tompion and Graham. Tompion died in 1713.

The extravagance of Charles II. as soon as he came to the throne after years of exile is regarded with disapproval by the graver historians. It is perhaps as well to point out that some at least of his expenditure paid dividends in the long run—in his offhand way he was genuinely interested in scientific experiments, and his "cabinet and closet of rarities" mentioned by Evelyn on November 1, 1660, contained a clock "that showed the rising and setting of the sun in the zodiac; the sun represented by a face and rays of gold, upon an azure sky, observing the diurnal and annual motion, rising and setting behind a landscape of hills, the work of our famous Fromantil." Where the king led, others followed, and the great clockmakers of the period never lacked patronage. Clocks and watches, moreover, were in great demand as royal presents, both to subjects and to foreign Governments. For example, there are extant bills from Tompion for presents from William III. (1694-1695) to Algiers and (1697-1698) to Tunis, Algiers and Tripoli. They are too long to quote here, but the last item is an indication of the difficulties of transport at that time. Here it is:

"For replacing the damage of 9 gold watches and putting new outcases to the having been retayned att Portsmouth above two yeares £5."

Prices were by no means low. A repeating gold watch, £70. A new spring clock with an ebony case and silver ornaments, £75. A silver watch, £11. What was the pound worth in 1695? I should imagine about ten times what it is to-day. These, of course, were royal gifts and of superlative workmanship, but even so their cost is a little surprising.

AT HOME AND ABROAD: POLITICAL EVENTS AND NEWS IN PHOTOGRAPHS.



MODERN METHODS IN THE TRAGIC SEARCH FOR A LOST FIVE-YEAR-OLD BOY: "FROGMEN" RETURNING TO THE SURFACE, AFTER EXAMINING A WOLVERHAMPTON CANAL. On January 12, nineteen days after he was reported missing, the body of the five-year-old Wolverhampton boy, Samuel James Poole, was discovered in the canal about half a mile from his home. The body was brought up by a boat's rope. There was no evidence of foul play and police enquiries were closed. During the search four "frogmen" under Lieut. I. Fraser, V.C. (stooping, in mackintosh), who directed them, examined much of the bottom of the canal in a different area.



THE ROBOT FOOTBALLER: A TRAINING DEVICE WHICH CAN REPRODUCE A DESIRED SPEED AND TRAJECTORY *AD INFINITUM*, TRIED OUT AT THE BRIGHTON AND HOVE ALBION GROUND. During the last year we have illustrated attempts to mechanise the training of cricket and Rugby football by means respectively of a robot bowler and a spring scrummaging machine. Association football has not lagged behind, and here we show a catapult-like apparatus which the trainer of the Brighton and Hove Albion team, Mr. Alex Wilson, has devised. It throws the ball accurately for distances of up to 50 ft., and at desired heights and angles, and so may prove invaluable in training players in stopping, heading, trapping and the like.



"INDEPENDENCE DAY" IN SAIGON: PART OF THE HUGE CROWD THAT GATHERED IN THE SQUARE OUTSIDE THE CITY HALL WHILE THE EMPEROR BAO DAI AND M. PIGNON SIGNED THE CONVENTIONS, ON DECEMBER 30.



AFTER THE SIGNING OF THE CONVENTIONS: JOYFUL DEMONSTRATORS, CARRYING BANNERS BEARING SLOGANS, MARCHING IN PROCESSION PAST THE CITY HALL IN SAIGON.

Some 100,000 people gathered in the main square outside the City Hall in Saigon on December 30, when the Emperor Bao Dai and M. Pignon signed the conventions implementing the terms of the Franco-Viet Nam agreement of last March. It was an important occasion, for it marked a new phase in the creation of an independent Viet Nam. Thousands of people went to Saigon from all over Indo-China for the occasion.



EMPHASISING THE IMPORTANCE OF FEDERAL HELP FOR BERLIN: DR. SCHUMACHER ADDRESSING A MASS MEETING OF SOCIAL DEMOCRATS IN BERLIN.

Twelve thousand people attended a meeting in Berlin on January 9 when Dr. Schumacher, the Chairman of the Social Democratic Party in West Germany, emphasised the importance of Federal help for Berlin. Dr. Schumacher said that everything done for Berlin must be regarded from the political point of view, and it must not be overlooked that the way to the union of Germany and the liberation of the Soviet Zone led through Berlin. Concern has been caused in Berlin by reports that Dr. Adenauer's Government intends to reduce its contributions.



ORGANISED BY THE COMMUNISTS AND THEIR SOCIALIST ASSOCIATES: A DEMONSTRATION BY 10,000 WORKERS IN MILAN IN PROTEST OVER THE MODENA SHOOTINGS.

Following the clash between the police and demonstrators at Modena on January 9, when six of the strikers were killed, further strikes and demonstrations were organised by the Communists and their Socialist associates in central and southern Italy. In Milan and some other towns work only stopped for a few hours. On January 11 the Italian Cabinet resigned, but claimed that this was in no way connected with the political agitation caused by the Modena shootings.

NOTES FOR THE NOVEL-READER.

FICTION OF THE WEEK.

THIS week has one long story with a big and impressive theme: rather an unamenable, unlikely one for a novelist. "Roll Back the Sea," by Anton Den Doollaard (Heinemann; 15s.), is all about the reclamation of Walcheren. In October, 1944, the Allies breached the dike in four places. After another week the island was free, but it was half-drowned—a lagoon dotted with islets, and encircled with yellow dunes, by way of a reef. And beneath the pounding of the seas and scouring of tidal currents, the breaches widened every day, the gullies pushed farther in. If the gaps were not closed at record speed, it would be too late, and Walcheren would be gone for ever. And after four years of occupation, with the war in progress and the north still in German hands, it seemed a hopeless task. But it was done. This writer saw it done; he was liaison officer between the Royal Engineers and the Waterstaat, the Government department in charge of dike repairs. He witnessed the entire struggle, and has tried to re-create it all round: as a moment in the life of earth, a heroic action in his country's unending war, a bewildering catastrophe for thousands of humble folk—but above all, as a job of work, a problem in engineering.

The dispossessed appear fleetingly; the workmen, high and low, are there all the time. At their head, the Waterstaat and the contractors march side by side, ill-yoked, suspicious allies, but alike indispensable. Chief Engineer van Hummel, of the Waterstaat, is an "office type," a tiny little man with glasses and peering eyes, and a sharp, ironic way of speech. But he is also a poet and fanatic. The diking of the Zuider Zee was his finest hour—but that was a mature project; this will be a mad race with time and tide. It scares him, yet it must be done. And Bonkelaar is the man to do it: Bonkelaar the sly, the swaggering, the pot-bellied, the grinder of the poor, the indefatigable closer of gaps. He will cheat his workmen, swindle his employers; but he won't take a beating. Those two are the first on the job. At that stage their equipment is one good rowing-boat, another with a leak, and one suction dredge at the bottom of the Scheldt.

The story of their work—the long, losing start, the brighter hopes, the shattering reverses, the wild expedients, the final, deflating triumph—is really not for me at all. It is a detailed saga of engineering, and I made very little of it. Yet it is exciting even to the layman, even to the bonehead; for the scenes are visible and all alive, the issues are always clear. Indeed, any flaw is on the human side, which—perhaps by contrast—seems to have a journalistic matinee, a told-to-the-children air. Nevertheless, the whole effect is both large and likeable, and some of the descriptive pages live in the mind.

"First Steps Inside the Zoo," by John Lodwick (Heinemann; 9s. 6d.), is at the opposite extreme indeed. From the North Sea to the Riviera, from simple virtue to elaborate, decaying vice, from purpose to futility, from workmen to spivs and swindlers, degenerates and secret agents. As of course we expect. John Lodwick has a corner in spivs and thugs, and the question really is: How savage will he be this time? His constant care is to affront the bourgeois, however hardened; but his mode of doing it alters from book to book. He started with a vein of lurid and debased poetry—something more, and more original, than pure cynicism. But now disgust is waning, flippancy is taking over. There were already signs of it, and this book is almost gay—when it is not tedious. Alas, it is often tedious: the outcome of being brilliant in a moral vacuum.

As for what it is about—by the time we know, we don't really care. It seems to matter so little. Dormant, such hero as there is, deserted at Arnhem, and was thereafter blackmailed into the Secret Service. He has been stationed at Banyuls, but now he is to move on, and cultivate an old acquaintance on the Riviera, a rich American of strictly peculiar habits. As Fletcher Dow has a wife, a train of mistresses both active and superannuated, and a natural daughter of sixteen, his entourage is sexy enough for anyone. And there is Hodder's wife too. Dormant is not officially concerned with Dow, but with this man Hodder—why, he was not told; indeed, his blackmailing superior never tells. But finally the plot takes shape as an affair of Russian spies, who have been ordered to produce an "incident" and kidnap a British admiral. As they find out when he is in their grasp, the wrong admiral. There is a little bumping-off, a lot of sprightly irrelevance; and it would all be very entertaining, if one didn't get rather tired of it.

Next, a preposterous transition leads to "Mothering Sunday," by Noel Streatfeild (Collins; 8s. 6d.). Old Mrs. Caldwell is a widow living alone—quite alone, for she has lately sent away her cook-housekeeper. She has five grown-up children—four, if you exclude Tony, a deserter and escaped convict; and they are perturbed by her change of habits. She will see no one; even to Virginia, her cherished grandchild, the house is barred. Her days are spent in rambling about the countryside, which is most unlike her. And then her attitude to Tony is rather shocking; nowadays she seems to hate him, and refuses to hear him mentioned. Something should perhaps be done, and Jane—the wife of Simon Betler, K.C.—is the one to do it. She is a great committee-woman, a non-stop organiser; and now she organises a surprise visit from the whole family. They shall all go down on Mothering Sunday, like it or not.

And they all go. Including the in-laws, which Jane had not meant; and the children, which is downright tiresome. But though the secret sticks out a mile, even the brilliant Simon fails to see it till he falls over it. Then there is a happy ending for nearly everyone. Rather slight and patchy, but agreeable.

"Storm," by Anthony Fon Eisen (Gryphon; 7s. 6d.), brings us back full circle, to simple heroism and the struggle with nature. Only this time in a humble way. It is an adventure yarn, about Newfoundland and Labrador, villainy and shipwreck and a great noble dog. (The title is the dog's name; but it is just as applicable to the weather, and perhaps both are meant.) Briefly, Martha has a father who drinks, and has marooned his children on the wild coast of Labrador, in the clutches of the villain Brady. And her lover, Alan, goes to the rescue. There is not a dull moment, and the perils, in their simple way, are first-rate.

CHESS NOTES.

By BARUCH H. WOOD, M.Sc.

Here is my game in the Hastings International Tournament against the young New Yorker, Larry Evans.

White	Black	White	Black
B. H. WOOD	L. EVANS	B. H. WOOD	L. EVANS
1. P-Q4	Kt-KB3	8. Kt-B3	P×P
2. P-QB4	P-KKt3	9. BP×P	P-QKt4
3. Kt-QB3	B-Kt2	10. B×P	Kt×KP
4. P-K4	P-Q3	11. Kt×Kt	Q-R4ch
5. P-B4	P-B4	12. K-B2	Q×B
6. P-Q5	O-O	13. Kt×QP	Q-Kt3
7. B-Q3	P-K3	14. Kt-B4	Q-R3

Considering that the advance of all four centre pawns is considered bad, in fact a discredited system, White has an excellent game, though it is doubtful whether he can keep his extra pawn; Black's pieces are too active.

I still think this a wise decision. If I had tried to hang on to my extra pawn I think my pieces would have become tangled up in its defence and I should probably have lost the game before my queen's rook had come into play.

15. Kt-K3	Kt-Q2	17. R-Q1	B-Kt2
16. Q-B2	Kt-B3	18. B-Q2	
18.	Kt×P	22. Q×Q	B×Q
19. Kt×Kt	B×Kt	23. P×B	QR-Q1
20. B-B3	Q-B5	24. R-Q2	R×Rch
21. Q-Q3	B×B	25. Kt×R	B-Q6

Here I proposed a draw—and justifiably, as I am sure all will agree—but my opponent refused. To propose a draw is often the best move you make in the whole game—it tempts your opponent into over-playing his hand. Once, the offer of a draw in one game won me first place in a tournament! Szabo suggested later that 26. R-K1 might have been my best move now; presumably, if then 26... R-Kt1; 27. R-K7, R-Kt7(?); 28. K-K3!

26. Kt-Kt3	P-B5	30. Kt-Kt7	R-Krch
27. Kt-B5	B-B4	31. K-B2	B-Q6
28. R-Q1	R-Kt1	32. R-Q2	R-QB1
29. K-K3	R-QB1	33. Kt-Q6	R-Kt1

Attempting to trap my knight, Evans now loses his QRP in exchange for a far less important pawn.

34. K-K3	R-Kt3?	38. Kt×P	P-B4
35. Kt-B8	R-K3ch	39. P-QR4	R-B8
36. K-Q4!	R-K5ch	40. P-R5	
37. K-B5	R×P		

Owing to the speed at which Larry Evans plays, we had still not reached the end of the first session. Now I began missing wins. Here 40. R-R2! would have set him a still nastier problem. After the move played, Black's rook gets behind the pawn instead.

40.	R-QR8	43. Kt-B6	B-K5
41. K-Kt6	P-Kt4	44. Kt-Kt4	
42. P-R6	K-B2		
44. Kt-K5ch and 45. Kt×P	would have been stronger.		

I had analysed only 46... B-R1, which, in view of White's threats of R-K8 and Kt-R6 and P-R8, would lose. Now I have the choice between 47. P×P, B×P with the win still possible, though laborious, and the line I took.

47. R×B	P-B7	50. K-Kt5	Q-B4ch
48. Kt-R6	P-B8(Q)	51. K×P	R-R5ch
49. P-R8(Q)	Q-B3ch	52. K-Q3	Q-B8ch

Now I have regretfully to reconcile myself to the fact that there is no haven of refuge for the white king. I had thought the centrally-placed rook might assist in providing useful cover, but it is not so. It is obvious that Black dare not play to win the knight—he would be mated himself in a few moves. But what a game it has been! I always get a "kick" out of those games which, with each side queening a pawn about move 50, virtually start all over again. To vary my play would lose.

53. R-K2	Q-QKt8ch	56. R-B2	Q-B8ch
54. R-B2	Q-KB8ch	57. R-K2	
55. R-K2	Q-Kt8ch		Drawn game.

BOOKS OF THE DAY.

THE GEORGIAN SCENE.

WHENEVER I see the name of Professor A. E. Richardson on the cover of a book, I open it with a lively sense of pleasurable anticipation—and I am never disappointed. It must be some eighteen years since I first encountered his "Georgian England," and since then I have been a Richardson "fan." His latest book, "An Introduction to Georgian Architecture" (Art and Technics; 25s.), will prove invaluable to the student and a joy to the connoisseur. He divides the period into two halves; the first, from 1714 to 1760, covers the period from Sir Christopher Wren to the Palladian movement; the second, from 1760 to 1820, was the age of great buildings in point of size and magnificence. Professor Richardson rightly includes the so-called "Early Victorian" (which produced some exquisite buildings) with the Regency style which it succeeded and with which it blended. The majority of Early Victorian buildings have nothing in common with the horrifying products of the Dark Ages of taste which followed. The book is profusely illustrated with photographs, and with the author's own pen-and-ink drawings and includes many photographs of that essentially Georgian city, Dublin. May I venture one small personal criticism? There is no mention of Stowe, the great Palladian house now a famous public school. Most of the great Georgian architects, to use vulgar parlance, "had a go" at the house—Vanbrugh, Gibbs, Kent, the brothers Adam predominantly. The result is such a glorious—I use the word deliberately—mixture, blending into one impressive and lovely whole, that I should have thought it would have been difficult to omit what is in effect a complete lesson in stone and stucco of the history of Georgian architecture.

Georgian architecture was the product of an age which was continually growing in self-assurance and an England which was steadily increasing in wealth as the results of expanding trade and conquest flowed back to these islands. It was natural that the new men who were rising to wealth and power should wish for visible memorials of their success. Just as in an earlier day the "Face Painter" who did for the Elizabethans what amounted to very little more than "face maps" gave way to the portrait-painter proper, who flourished most gloriously in Britain in the eighteenth and early nineteenth centuries, so the craftsmen who in the seventeenth century had provided for the lord of the big house very little more than a map of the estate, gave way to the "house-portraitist." A delightful book on this out-of-the-way genre is John Steegman's "The Artist and the Country House" (Country Life; 30s.). As Mr. Steegman points out, the majority of the "house-portraits" in the eighteenth century were the result of a "direct commission from some landed gentleman, who would in the same spirit commission Reynolds to paint his wife and Stubbs his horse." Although the eighteenth century was the real period of florescence for this type of painting, Mr. Steegman covers the whole ground from the near-estate-maps of the seventeenth century through the romantics such as Joseph Nash (who peopled Victorian garden walks with Jacobean ladies and gentlemen), to the moderns—the Rex Whistlers, Richard Wyndhams and Algernon Newtons, of whom the first two, alas! have been untimely taken from us. The book, which is written with elegance, discernment and taste, is equally distinguished by the reproductions.

While Wootton and Stubbs, Francis Wheatley and George Lambert—each from their own angle—were portraying the houses of the great as a background to canvases whose foreground was filled with the owners' dogs, horses or families, a great genius was looking at the same scenes through very different eyes. Thomas Rowlandson, probably one of the most prolific artists this country has ever seen, was providing the corrective to the dignified "my lady between her scented lavender sheets" impression of Georgian England given by the great portrait painters whose financial success he envied and the pomposity of whose patrons he guyed. Mr. Bernard Falk, in "Thomas Rowlandson: His Life and Art" (Hutchinson; 43 3s.), has performed a considerable service for historians and connoisseurs alike. For this is the first full-length life of the great draughtsman to appear. Hitherto the main authority for such facts as are known about Rowlandson was a short article in the June number of the *Gentleman's Magazine* in 1827—many of the facts in which Mr. Falk now proves to be wrong. With painstaking care Mr. Falk has now pieced together a picture of the handsome, vain, deep-drinking, heavy-gambling artist, who lived the life of the contemporaries he depicted to the full. The plates which illustrate this handsome volume are a joy, Mr. Falk's narrative flows easily along, and the material he has unearthed will prove, I predict, a mine which many others will quarry. Would it be ungrateful to suggest that sometimes Mr. Falk falls between two stools? That is to say, he is not quite an art critic and not quite a historian. This is a valuable book—but I would still like to see a life of Rowlandson from the pen of such an evocative historian of the period as, say, Mr. Arthur Bryant.

These three books are so admirably illustrated that there are no superlatives left for "On Trust for the Nation," by Clough Williams-Ellis (Paul Elek; 21s.), the second report of the National Trust. Nevertheless, they are deserved—and deserving of praise too is the charming style in which one of the most original of our architects has provided the letterpress. Nothing stodgy, nothing guide-book here, but an admirable reflection of the taste and intelligence which illuminate all the admirable activities of the Trust, surely one of the most deserving institutions in the land. And I am indebted to Mr. Clough Williams-Ellis for his description of Mr. Churchill (whose modern house at Chartwell is included) as "Leonardo-like" in his versatility. "Leonardo-like." Of course—the perfect solution for those of us who have despaired of describing adequately that great man's incredible many-sidedness.

Before leaving the eighteenth century, one word about Lawrence Henry Gipson's "The Great War for the Empire," the seventh volume in his series "The British Empire Before the American Revolution" (Alfred A. Knopf; 7.50 dollars). It is to be hoped that some British publisher will arrange for this valuable picture of the British conquest of America and Canada from the French to be made available for schools and universities here.

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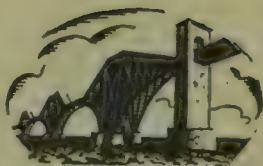
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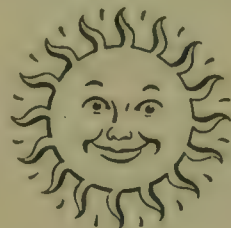
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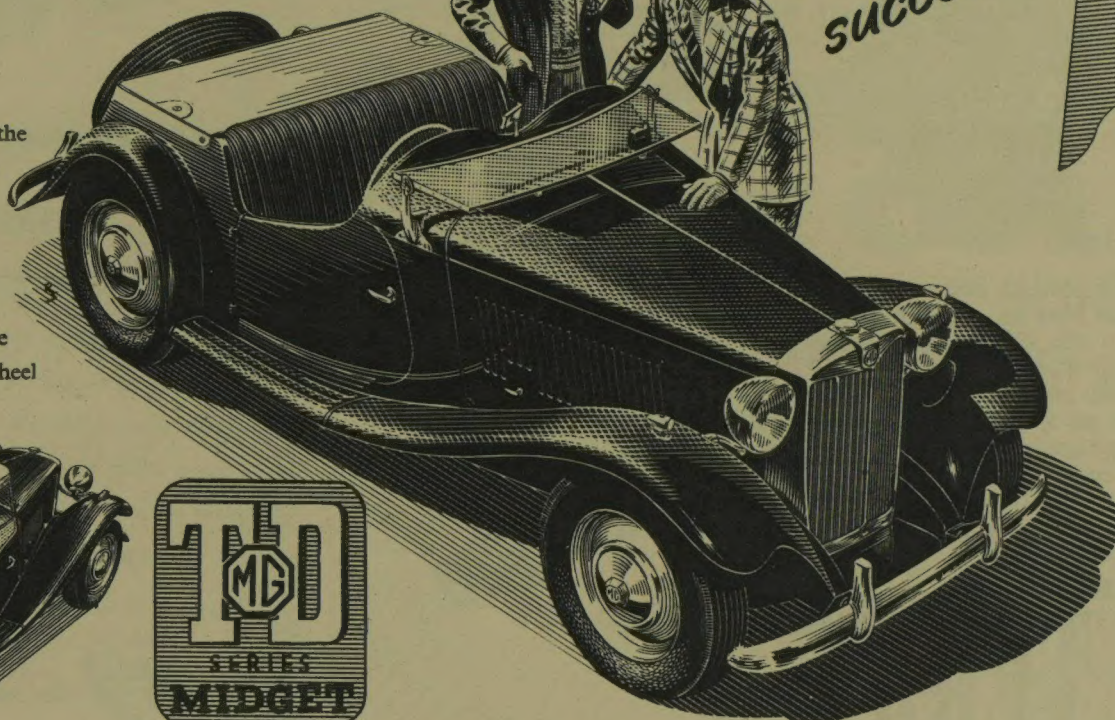
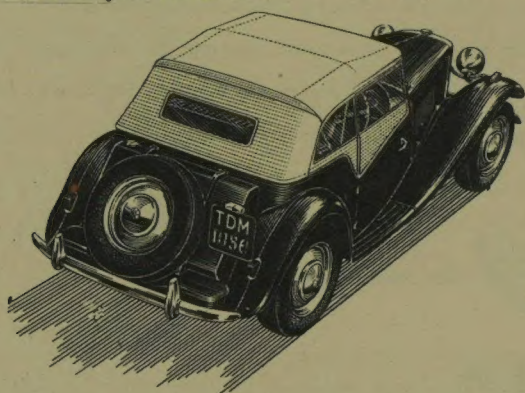
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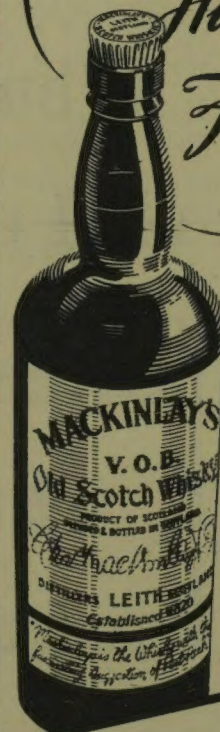
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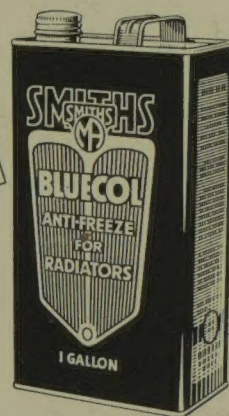
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